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ccgtcgacca tagtag 316

<210> 1265
<211> 356
<212> DNA
<213> Eucalyptus grandis

<400> 1265
tcaggctccc acgccgttcc attcgcgcac ctccgacctc ctctctccac gcggccactg 60
tcccgtcgcg cgaattcacc ccgccgtcgt aggagaccgc atcctacgcc gccgcggcga 120
tggcggcgcc acgaggagat gccaggggaa ggaatcaatt acttctcgt tactggccca 180
ggataacaga tcaagagcta caacaaatct tggagactca aactctgtaa tcaactctct 240
gtttgagaaa atgttgagtg ctagtgatgc aggtaaaatt ggacgtttag tgctgccaag 300
aaaatgtgcc gaggcctatt ttccgcctat ttccagcct gaaggattgc cgctca 356

<210> 1266
<211> 360
<212> DNA
<213> Eucalyptus grandis

<400> 1266
gcgcgcacga gacatgggac gatccccctg ctgcgagaag gcgcacacca acaagggcgc 60
gtggaccaag gaagaggacc agcgcctcat cgactacatc cgcctccacg gcgaagggtg 120
ctggcgctcc ctcccaaat ctgccgggct tctcaggtgc ggcaagagct gcaggctcag 180
gtggataaac tacctccgcc ccgacctcaa cgcggaact tcaccgagga agaagacgag 240
ctcatcatca agctccacag cttgctcggc aacaagtgt ctctgatcgc ggggagattg 300
cccgaagaa ccgacaacga gatcaagaac tactggaaca cccacatcaa gcgcaaagct 360

<210> 1267
<211> 375
<212> DNA
<213> Eucalyptus grandis

<400> 1267
cgcccccccc tctcgcagc ccagcgtgac cgctcacttc agtcaagggg taccctgccc 60
gcaacagcat ttccgagtat gaccgcgaa ggcgtaactc aattcccgca gaatacttta 120
ctatgggctt tactcctct gctcccattt accctcccat ctctccactg caccctcca 180
cacaactccc tgctgtgacg caggctcggc cctcgggtga gtccaaaggg gacccaagaa 240
agaagtacca atgtgccgcc tgcccgctg catttgccag ggcttacaat ttaaagacct 300
acatggcaac gcatgacccc aacaggctga agccccatgt ctgcccccat cgttcttgcg 360
gccgttcctt cagca 375

<210> 1268
<211> 567
<212> DNA
<213> Eucalyptus grandis

<400> 1268
gacgagatga tgatgaagaa ggggagcgac ggagggatag cggagggtgaa tcccacgccg 60
aagaaggggg tgacgtccaa ggttggtggac tacattgaga agctgatcgt gaagttcatg 120
tacgactcct ctctgcctca ccaatacctc gccggcaact tcgctcccg cgccgacgag 180
accctcccg tcaccgacct ccccgctcgt gcccatctcc ctgattgctt gaatggagaa 240
ttcgtccggg tgggccccaa tcccaggtt gcccggtcg ccggatacca ctggtttgat 300
ggagatggca tgggttcattg gatgcggata aaaaatggca aagctactta cgtctctcgc 360
tatgtgagga cgtcgaaact taagcaagag gactactatg ggggagctaa atttatgaag 420
attggagacc ttaaagggtc ttttggttta ctcatggtca atatgcaaat gctgagagca 480

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gaaaaccgcc | ggaaccacca | tcctgagggt | cggttcagat | tctcctaatt | ggggtcaatc | 300 |
| tgagctcca | gtgccaagta | ctataaacgg | atttcttgat | cctggacgaa | caattccatg | 360 |
| ttctg | | | | | | 365 |

<210> 1273
 <211> 328
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1273 | | | | | | |
| aacaaatcag | nggaagaaaa | tatgcagcat | ttgaaggacg | aagctgcgaa | catgatgaag | 60 |
| aagatcgagc | tcctggaaga | ttcaagaagg | aagctccttg | gtgaaggctc | aggatcatgc | 120 |
| tcgatagagg | aactgcaaca | gatagaacag | cagctagaac | ggagtgttat | cagcattcgt | 180 |
| gctagaaaga | ctcaggtctt | caaggagcag | attgacaagc | ttaaagagaa | ggagaagatg | 240 |
| ttgacagctg | agaatgcaat | cttaactgag | aagtgtggaa | tcaagcccc | acaaagagca | 300 |
| aatgagtgc | gggatagtc | acttctca | | | | 328 |

<210> 1274
 <211> 390
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1274 | | | | | | |
| cttaccgagc | actcccctcc | tgattctaac | tcgtccattt | tcgttggtag | cagtacatca | 60 |
| ttggctaata | agcctaaata | cagagatatc | caagcaagag | aagccacaag | tggttcatcc | 120 |
| cgccaacact | cagatgaaga | tgatgctg | acagtggcag | atccaagcga | acagagcaga | 180 |
| tatcctactg | atcccaagcg | aattagaagg | atggtttcca | atagggagtc | tgctagaaaa | 240 |
| tcacgtaaaa | ggaaacaagc | acacttagcc | gaacttgaaa | tacaggctga | ccgacttaga | 300 |
| ggagaaaagt | ctactttgtt | taagcaacta | ttagatgctg | cacagcacta | ccgccatgct | 360 |
| gatacaaata | atcgagtgc | gaaatctgat | | | | 390 |

<210> 1275
 <211> 384
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1275 | | | | | | |
| gaattacacc | caaccaaac | aaaagagtca | taattcagga | tccaccttgt | ttagttaagc | 60 |
| aagaataatt | ttcccttccc | ttttctcttt | ttgagccctt | tagagttaca | tgtcttgggt | 120 |
| agcaatgacg | gggaactttg | ggtggggctc | aaactccatg | gaagaggcgt | ggaggaaagg | 180 |
| tccttgact | gctgaggaag | acaagtact | cattgagtat | gtgaagttgc | atggggaagg | 240 |
| aagatggaac | tctgtagcta | ggctcacagg | gctcaagagg | aatgggaaga | gctgtagatt | 300 |
| gaggtgggtg | aattacttga | ggcctgacct | gaagagaggt | cagataacct | ctcaagaaga | 360 |
| gagcgtcatc | ctagactccc | gcta | | | | 384 |

<210> 1276
 <211> 382
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1276 | | | | | | |
| gtcgaccgag | tggaagagag | gttggcccct | ccgatctggg | caactcgcca | ccctctgcga | 60 |
| taagtgcggg | tctgcatttg | aacaggccac | gttttgcgaa | gttttccact | cgaaggactc | 120 |
| cggatggagg | gagtgcgctt | cctgtggcaa | gcgcctgcat | tgcgatgca | ttgcttcgag | 180 |
| gatgctgctg | gagctgctcg | attgtggcgg | gatcaactgc | gcgacctgtg | cgaaaagtcc | 240 |
| aggacttctg | cctatcgcaa | gtgatgagag | gcctagttag | tttggcatga | ttaatgttcg | 300 |
| tactggtgaa | ctgcaatcta | gtaccacaga | caaccatttc | gatagcgacg | aggttgataa | 360 |

actgaagctt attcgattga ga

382

<210> 1277
<211> 367
<212> DNA
<213> Eucalyptus grandis

<400> 1277
ataagatcgg atcttttctg ctttggcgac gccggaaacc cgaattcagt gccc aaacag 60
tagtcgaccg accgaccgac cgaccgggaa gttccgatca tggccgtgga gatgtttcaa 120
gagccggagt cggcggttct cgactccgtc cggcggtacc tgctgtcgga ggactccgag 180
tgccggttct tcgagccgcc gccgccgccg acccggaact tctgcggcgc cggagccccg 240
gtgatctgcg ggagctccag cttcagcagc ctgtaccgtt gctgaccga gaactggggc 300
gagttgccgc tcaaagaaga tgaccgggaa gacatgggtc tctacggcgt ctccgcgacg 360
ccctcac 367

<210> 1278
<211> 384
<212> DNA
<213> Eucalyptus grandis

<400> 1278
cacgctcatc ggtctgccag aaactcacgg agagagagag atggcggaga gagaggagaa 60
ggggaagtac gacgagatga tgatgaagaa ggggagcgac ggagggatag cggaggtgaa 120
tcccacgccg aagaaggggg tgacgtccaa ggttgtggac tacattgaga agctgatcgt 180
gaagtccatg tacgactcct ctctgcctca ccaatacctc gccggcaact tcgntcccgt 240
cgccgacgag acccctcccg tcaccgacct ccccgctcgt gcccatctcc ctgattgctt 300
gaatggagaa ttcgtccggg tgggccccaa tcccaagttt gccccgggtc cgggatacca 360
ctggtttgat ggagaaggca tggg 384

<210> 1279
<211> 368
<212> DNA
<213> Eucalyptus grandis

<400> 1279
cacggcggcg ccgccggggt tcttggggcg agggccgtgc cgatgaaaca ggcaggtctc 60
gcccagaagc ccacgaagct gtaccgggga gtgaggcaga ggcactgggg gaagtgggtg 120
gccgagatcc ggctacccaa gaaccgcacc cgctcttggt tcggcacctt cgacacggcc 180
gaggaggccg cctcgccta cgacaaggcg gcgtaccggc tgccgggtga tttcgcgcgg 240
ctcaacttcc cgcacctcaa gcacaagggg tcgcacatcc agggcgactt cggcgactac 300
aagccgctcc attcctccgt ggacgccaag ctccaggcca tctgccagga catggccgag 360
aaaccagc 368

<210> 1280
<211> 341
<212> DNA
<213> Eucalyptus grandis

<400> 1280
gtcaactcgg tgttcgagct gcacaagctg ctggcccgcg cgggggcgat cgagaagggtt 60
ctgggcgtgg tgcggcaggt gcggccggcg atcgtgacgg tggctcgagca ggaggccaac 120
cacaacgggc cggctcttct ggaccgcttc aacgagtcgc tgcactacta ctccaccttg 180
ttcgactccc tggagggtct cgccagcacg caggacaagg ccatgtcgga ggtctacctc 240
gggaagcaga tctgcaacgt ggtggcgtgc gaggcgccg accgggtcga gcgccacgag 300
accctcgcgc agtggcgggg ccgcctcggc ggcgcggggt t 341

<210> 1281
 <211> 295
 <212> DNA
 <213> Eucalyptus grandis

<400> 1281
 tgacttttcaa tgagttttcag aacacatgga gtggactttc taaggatatt ggatccatca 60
 acatggatga gttcctgaag aacatatgga cagctgagga gagccaacta cagctacaag 120
 acatggcgcc ttctggtaat ggaggggaag gaggtggtca agtagggaat ttgctgagac 180
 aggggtcatt gactctgtcg cggactatta gtcaaaaaac agttgatgaa gtgtggagag 240
 aattattcaa agagacggag gatgtgaaag aaggagtag agaaggaggt gacat 295

<210> 1282
 <211> 365
 <212> DNA
 <213> Eucalyptus grandis

<400> 1282
 tttttttttt ttttcaagct aagatcaaac caaaattaaa aaagaatttc acagtatttt 60
 tatgcaaatt caatgacacc ttatcaaggt ttaccaaatt ttgaaacaaa ttatacacac 120
 ggcttgaggc atccatgaaa tcacgcaggc aaaaccgcgc gctcattttc acgactgcct 180
 acctgctcgc ggggggttatt caaagcctcg aataccttag tgcaagcacc tgagaattcc 240
 atcaatgcct taaaaacgcg aggcaggccg ttcttgaggg gggttcagtgc catggccttg 300
 gtgaactcga ccgaaaccgc atacttggcn ttcacatcgt ccaaccgttt ttnagggcc 360
 tcgat 365

<210> 1283
 <211> 428
 <212> DNA
 <213> Eucalyptus grandis

<400> 1283
 ctccggcgag ctcaaactgt tcatgaccac gtccgcgtcc tcgtaatcct tcgcactgat 60
 ctcttcgcgc ccaccgcctg cccctcggc ctctccact tctcccttg cttccccatt 120
 gccaaacgcc ctgcgcgcct ctgcgcgcgc tgctgtatc tctgctgcgt ccgtggactc 180
 cggcacgcgc agccgccatg ccgagtcggc gaaattgagg cacgcgccc gcccgcgag 240
 cgccagcgca gccacgtcgt gggcccgggc ggccatctcg ggggtcgggt acgtcccag 300
 ccatatccgc gtcttcttgt tgggctccc gagctcgcac acccacttgc cgttggtcct 360
 gcgcgggacc ccccggtaca cgggggtggc ggtctccttg aacacgacc gcccgggcgc 420
 cttcttcg 428

<210> 1284
 <211> 532
 <212> DNA
 <213> Eucalyptus grandis

<400> 1284
 ggaaaagaga aggcagcttt cccgtataaa acccaaacc ctccaaattc tcccccaat 60
 tctccagcca gggaagggcg agggcgcgca cggcgacggc gacgatcatc ccatctccga 120
 ccagctgatc cttccgctcc atcgctcgca tgtacggacg ggcggcggag tggagccgct 180
 acgaggacaa ggtcttcgag cacgcgctgg tggcggtggc ggaggactcg cccgaccggt 240
 ggcagctgat cgggaaccgc ctgaaccggt ccgcgtcgca agtggttcgag cactaccaga 300
 ggctgggtgga ggacattgac gcgatcgagt cggggcggtg cgagccgccc agctaccgcg 360
 acgaccaccc ggcgagctgc ggccagattg ctttcgagac gaagccccgg atcaaggagg 420
 cggagaagaa gaagggcaac ccgtggaccg agggaggagca caggttattt ttgctcgggc 480
 tgcagaccta tggcaagggc gactggagga gcattctcag gcactttgtc ct 532

<210> 1285
 <211> 349
 <212> DNA
 <213> Eucalyptus grandis

<400> 1285
 aaagtcccga gatgccgcga cgcgaattcc cctctcgaat gcgctcggaa ttcgagcgat 60
 gatcggagcg gcgaccaacc agatcccgcg gccgcgcgcg ccgcccgcagc cgcagcaagc 120
 cgcgcccgcg gccgcgcgcga tccgggtccc cgactccgtc tacaacgcgc tcaggggtggg 180
 cgcggtcttc cagcgggtgt cgaagcacct cgccaccatc ggcaagggct ccggcctgtc 240
 ggcatcttgc ggtacttcca tggagttcct gaactcgtgc ctctgcctcg ccagaggcat 300
 tgactatgcg gtcgcgaaca atgaggttct gcccaaagct cacgaattg 349

<210> 1286
 <211> 350
 <212> DNA
 <213> Eucalyptus grandis

<400> 1286
 cttctgcgag ctagggtttc tctcgtcct cctcctctct aggccgtgat ttctcctccc 60
 ctcgatcggc gacgtcgccg tcgggttcggc tctccggtag ctctgctcc tcccggcttt 120
 catggaggct aaggtgatgg aagacgctag caagtccgag gctcactcca tatcggtgc 180
 ggccttcgtg gaaggtggag tccaagaggc ctgcgaggat gcttgagca tctgccttga 240
 agctttctgc gacagcgaac catctacggt gaccacttgc aagcacgagt atcatctcca 300
 gtgcattctc gagtgggtgc agaggagttc acagtgtccc atgtgttggc 350

<210> 1287
 <211> 344
 <212> DNA
 <213> Eucalyptus grandis

<400> 1287
 gaaggttggg acatctgggt gagcaggccc ttgtcctgca aacagatgca tgtatgcttc 60
 ataactctat agatatggaa atgtcactgt acactgatca tcaatgtggg aaagaacaca 120
 tcccctgtcg aactttgcag attttacaat cacataatga tgaagtttgg cttgtgcaat 180
 tttcacataa tgggaaatat ttagcttctg catccaatga tcgatcagca atcatttggg 240
 aggttgatga gaatggcagc gtctcattga agcataaatt gactgggtcac cagaagccga 300
 tttcttctgt ctgttggagt ccagatgacc gacagcttct cact 344

<210> 1288
 <211> 359
 <212> DNA
 <213> Eucalyptus grandis

<400> 1288
 aacatcttct ggctaagcgc gttcagcatc actctcaact actggcgtga agatgttcaa 60
 aggcaaactt tcttatctca gaggctaaaa gatgttccac ccatggcttc ttaatctgat 120
 ccagatgaac cgtggagaaa caaaatcgaa gtctcatcaa aaggatcctg attgacctaa 180
 gaatgacaag gcaaccattc ttacggacaa aatccagggt ctgaaggatt taactacgga 240
 agttaacaaa ttgaaagctg aatgtgcagc tcttattgaa gaatctcgtg agctgatgca 300
 ggagaagaat gagctcagag aagagaaatc atctttaaaa tctgaagttg aaaatctta 359

<210> 1289
 <211> 381
 <212> DNA
 <213> Eucalyptus grandis

<400> 1289
 tggatccaaa gaattcggca cgaggctgcc tccaccacca ccgccgtccc caccgccgcc 60
 accaccacca ccaccaccac caccacctta tactgtacaa ataatccctt ggccctcgcc 120
 gttatagcct cttactcaaa aatcagtttt tacccttttc tgttgcgtag tcgtagtttt 180
 gggccagggg ttctattcgg tatatgtaga gaagtcagtg ggcgaaaccg agcgtcgagc 240
 ggtcggccat ggcttctctt tcttctgtag cttccgcgag gaaggacgcg gatcggatca 300
 aggggccgtg gagccccgag gaggacgagg cgctgcagag gctgggtccag agctacggcc 360
 cccgcaactg gtcctgatc a 381

<210> 1290
 <211> 330
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1290
 ttccaatctt cccttccctt cccatcgcac ctctccaaag attccacctt tcgtctctct 60
 ctctcgaagc ccaaaccctc tcgatctata ttgccctcct ctcctccgtt catccctcgc 120
 aaaaccagac ccccgatca gccccgaaag aaggctcgac aagcaagatg gcggaagagc 180
 accggtgcca ggccccgcgc ctctgcgca acaactgcgg cttcttcggc agccccgcga 240
 cgcaggattt ctgctccaag tgctaccgcg acctccagct caaggagcag cagtctcca 300
 acgccaagct cgctttcaac cagacctgt 330

<210> 1291
 <211> 296
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1291
 gcagccgagt cgagcaagaa actaacgaac gcccgggtgtc attaggattc ataatccaca 60
 agaacaaaag aaaaaaggat catgggaaga tccccatgtt gcgaaggcaa tggcctgaag 120
 aaagggccct ggtcttctga ggaagacaag aagctccttg attttatcca gcagcacggc 180
 catggagctg gatctctctc cctaaacgtg caggtcttaa tagatgtggc aagagctgca 240
 gattgagatg gataaactac ttgtggccgg acatcaagag agggagtctt tccccg 296

<210> 1292
 <211> 355
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1292
 gccaagaccc tggccggcca caaggccgcc atctccgcgg tcaagttctc gccggacggc 60
 aacctcctgg cctcctcctc cgccgacaag acctccgcgg cctactccac cgctcctc 120
 gccccgctcc acgacttcca cggccactcc cagggcgctc ccgacctggc cttctccggc 180
 gacaccgcgc tctcgcgcnc gctcgcgacg acaagacctt ccgctctggt gacgtcccca 240
 cggggaccct cctcaagacc ctcacggcca caccaactac gccttctgct tcaacttcaa 300
 cccccactcc aacctcctcg tctccggctc cttcgacgag accgtccgcg gtctg 355

<210> 1293
 <211> 362
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1293
 cccctctacc cccaagccc cccaagccgt cctcgtccac cctcagctcc cgccgcccgg 60
 ccatccaagt cgcggtcccc gggcgacga gcttcttggt ggcgcgggct gtccccggg 120
 ccgagccgtc gggctccgct ggcggcgacg acgacaagca ctaccggggc gtgcgcccgc 180
 ggcgtggggg aagttcgcgg cggagatacg cgacccgacg cgcaagggga cgcgctgtg 240

557

<400> 1298

<210> 1299

<400> 1299

<210> 1300

<400> 1300

<210> 1301

<400> 1301

454

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|-----|
| gcttactccg | tccttcgttt | agctcgctga | ccagcgcgga | gctaggagcg | gtcgctaaag | 120 |
| gattactcgt | acaaaaacgta | aactcagctc | tgccaatttt | cccatggagg | gggaatctta | 180 |
| cttcgagaaa | gatgaaaaat | attctaattg | ctcaatcttg | ctcgaattat | ctgcttcgga | 240 |
| cgatctccca | gcttttgaaa | ggaaagcgaa | agagaagggc | tgtaacattg | atgggtgctag | 300 |
| cttctgggtac | ggtagaagaa | ttggctcaag | gaagatgggt | cttgaagaga | ggactcctct | 360 |
| catgggtggct | tccttggttg | gaagctctag | ggttgtgaag | tacattctcg | aatctggcaa | 420 |
| agtcgatgta | aatagggctt | gtgggttcgga | caaggctcact | gcccttcact | gtgctgttgc | 480 |
| cag | | | | | | 483 |

<210> 1302

<211> 368

<212> DNA

<213> Eucalyptus grandis

<400> 1302

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| ctttctttttg | cttcccgtta | atccctatatt | cgttatcaac | actttaaaag | tcggtgaaca | 60 |
| gtttaaaatt | ggaatgcata | ggaagtagta | gttcgacaat | ttcaactttc | aggtgctttt | 120 |
| tgggaaaaaa | attcaatatg | agaagatggg | taaaatttgt | tgcaattcat | tttcagggat | 180 |
| gctgcggtgg | tttgcatatt | ggcgacgtgc | ttgttcttaa | tcttgacagt | atggtttgga | 240 |
| gaactcttgc | gaccaccggc | caaggacctg | gcccagagga | cagtcacagt | gctgttcttg | 300 |
| tggggcacag | gatggttgtg | tttgggggta | ccaacggctc | tagaaagggt | aatgaccttc | 360 |
| atgtactg | | | | | | 368 |

<210> 1303

<211> 348

<212> DNA

<213> Eucalyptus grandis

<400> 1303

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ccgagctggg | gatgtcgtcc | ggcctcgtct | gcaacgacgc | cgtcagctgg | gtcacgttcc | 60 |
| acagcgcta | cgacttcggg | tacctggtca | aggccctcac | ccgccgcgag | ctccccggcg | 120 |
| acctcccga | gttccctgcc | gtcgtgcggg | tggtcttcgg | ggaccgggtg | tacgacgtga | 180 |
| agcacctcat | gcggttctgc | cacagcctgc | acggcgggct | ggaccgggtc | gccgccgccc | 240 |
| tggagctgga | ccgggcgggc | ggcaagtgcc | accaggccgg | ttccgacagc | ttgctgacgt | 300 |
| ggcaagcggt | caggaagatt | agggacgtct | acttcgcca | cgacgacg | | 348 |

<210> 1304

<211> 349

<212> DNA

<213> Eucalyptus grandis

<400> 1304

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| tgactttcaa | tgagtttcag | aacacatgga | gtggactttc | taaggatatt | ggatccatca | 60 |
| acatggatga | gttctctgaag | aacatatgga | cagctgagga | gagccaacta | cagctacaag | 120 |
| acatggcgcc | ttctggtaat | ggaggggaag | gaggtggtca | agtagggaat | ttgctgagac | 180 |
| aggggtcatt | gactctgtcg | cggactatta | gtcaaaaaac | agttgatgaa | gtgtggagag | 240 |
| aattattcaa | agagacggag | gatgtgaaag | aagggagtag | agaaggaggt | gacataaatt | 300 |
| tgccacagag | gcaacggact | ttgggagaga | tgacattgga | ggagttcct | | 349 |

<210> 1305

<211> 354

<212> DNA

<213> Eucalyptus grandis

<400> 1305

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgctgacgag | gcggcgctct | gcgggggctg | cgaccaccgt | gtccaccacg | ccaacaagct | 60 |
| cgcctccaag | caccaacggt | tttcccttct | ctgtccttcc | cctaaggaat | tcctctctcg | 120 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| tgacgtctgc | caggagaggg | gagcgttctt | gttctgtcaa | caggaccgag | ccattctctg | 180 |
| cagggagtgc | gatctccga | tacacacggc | caacgagcat | acccagaagc | acagcagggt | 240 |
| cttgctcacg | ggggtgaagc | tctccaccac | gtcgggaagtc | tacacgtctg | ccgccagcag | 300 |
| tgctctctg | tccaacggat | gcgatttcgt | ccccgacttc | aaagtccgaa | gc | 354 |

<210> 1306

<211> 513

<212> DNA

<213> Eucalyptus grandis

<400> 1306

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| caaagacttg | ctttcctaca | tgcacattct | gtatgagatc | tgcccctact | tgaagtttgg | 60 |
| gtacatggcg | gcgaatggag | ccattgccga | agcatgcaaa | aatgaggatc | ggatacacat | 120 |
| catagacttc | caaattgctc | agggcaccca | gtggaccact | ctccttcaag | cgcttgctgc | 180 |
| aagacctagc | gggccccctt | atgtgcggat | tacagggatt | gatgaccggg | tcaacaggta | 240 |
| cgctcgtggg | gccggattgg | aagcagttgc | aggaagggtg | gcggtgatct | ctgagaaatt | 300 |
| taagatccc | gtggagttca | acggtttgcc | ggagtttgcc | ccaaatgtta | ctcgtgacat | 360 |
| gcttgatgtc | aggccggggg | aagctctcgc | agtgaacttc | ccactccagc | tacaccacac | 420 |
| gccagacgag | agtgttgaca | tcaccaatcc | aagggatggg | ctactaagga | tggtgaaatc | 480 |
| gctttctccg | aaagtgatca | cattgatcga | gca | | | 513 |

<210> 1307

<211> 348

<212> DNA

<213> Eucalyptus grandis

<400> 1307

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| agcagctccg | cgctcgtgcc | gggcagcagc | agagcccgcg | gagcgtcgag | tcgctgtcct | 60 |
| cgtecccgcc | ggcgtcgccg | atgtcgtctt | cgctgtcccg | gtcgcggttc | cgggcggacc | 120 |
| cgatgggcca | gatggtcgcc | tccctcagga | acctgcagct | cgacaaagtg | aagtccatgc | 180 |
| cttgccggcg | gtccacttcc | gggtcgcgca | gggcctccag | gatccgaccg | gggttctaca | 240 |
| gcatgccac | gacgccgaca | caatccaccc | cgacggcgcg | cgggctgggg | tgcttggtat | 300 |
| cctgggagag | cccttacgag | gaagaaccgg | cgatggagaa | ggtggaat | | 348 |

<210> 1308

<211> 345

<212> DNA

<213> Eucalyptus grandis

<400> 1308

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggaaaagaga | aggcagcttt | cccgtataaa | acccaaaccc | ctccaaattc | tcccccaat | 60 |
| tctccagcca | gggaagggcg | agggcgccga | cggcgacggc | gacgatcatc | ccatctccga | 120 |
| ccagctgatc | cttcgcgtcc | atcgctcgta | tgtacggacg | ggcggcggag | tggagccgct | 180 |
| acgaggacaa | ggtcttcgag | cacgcgctgg | tggcgggtgg | ggaggactcg | cccgaaccgt | 240 |
| ggcagctgat | cgggaaccgc | ctgaaccggg | ccgcgtcgca | agtgttcgag | cactacaaaa | 300 |
| ggctggtgga | ggacattgac | gcgatcgagt | cggggcgggt | cgagc | | 345 |

<210> 1309

<211> 337

<212> DNA

<213> Eucalyptus grandis

<400> 1309

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cattagagct | gacccctgaa | agtgttaagc | atgggtcaca | atctggtcaa | gaaggcagca | 60 |
| ctccctctat | cagttatgaa | aagagttcag | aggatggata | taattggcga | aaatatggcc | 120 |
| agaaaaatgt | taaaggaaat | gaatttgtgc | gtagctatta | cagatgcacg | catccaaact | 180 |
| gccctgtgaa | gaaacaagtg | gagcgtcgc | gtagaggccg | gattaccgat | aacatctact | 240 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| taggcgagca | taatcatgct | agccacaga | agcacctacc | agtggctgtc | agctttgctg | 300 |
| tgtctatagt | tgaggagaaa | ccagagaagc | cttcccc | | | 337 |

<210> 1310
 <211> 383
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|-------------|-------------|-----|
| <400> 1310 | | | | | | |
| gcccccttta | ctttgttctc | tctctcccc | tctctctctc | gccatcgaaa | tcgaagagcc | 60 |
| gcctctctct | ctctctctct | ctcttttcca | agaagatcga | gaatttggtc | acccttcagc | 120 |
| atctgactta | agtttagtct | gaaggagggg | ttgcgtgatt | cccattgtgat | gaagtgggaa | 180 |
| acgggagttc | ccttaccacc | atgtgcatcg | agtgcgaatt | ggtttttcaa | cgaggaggga | 240 |
| aggaccgcga | aatggacccc | tgccgagaac | aaaatgttcg | aaaaagcgct | ggcgggtgcac | 300 |
| gatcaggaca | cgccggatcg | gtgggatagg | gtcgccctcga | tgatccctgg | gaagacgggtg | 360 |
| gaggatgtgg | ttaagcacta | tca | | | | 383 |

<210> 1311
 <211> 455
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|-----|
| <400> 1311 | | | | | | |
| gttcacgcgc | ggctacgggtg | cttccacatc | tacccttctc | ctttcctccc | cctcctcttc | 60 |
| ttcgtcttct | ctcttctctt | tcgagcccg | gtcgttctcg | gatggctgct | cgacaagccc | 120 |
| cgaccctctg | ggcttcgagc | taccgggtcc | gatcgggctc | aaccacctca | ccccatctca | 180 |
| gatcaaccag | atccaagccc | agatccagtt | ccaaagcacg | aacttgccct | cctaccatgg | 240 |
| ccacggctac | cacccgagca | tgcttctggg | accgaagccc | gtgtccatga | agatttcggg | 300 |
| gtcggcgggc | aaaccggcga | cgaagctgta | ccgggggtgtg | aggcagaggc | attggggcaa | 360 |
| gtgggtcgcc | cgagatccgg | ctgcccgaag | acaggaccgc | cctctggctc | ggcaccttcg | 420 |
| acacggctga | ggaagccgcc | ctcgccctacg | accgg | | | 455 |

<210> 1312
 <211> 472
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|-----|
| <400> 1312 | | | | | | |
| tgcaaaccct | agactccgca | tcttcgggag | gaacgtctcg | ctcctgcgaa | acctcgtacc | 60 |
| gcgcttcggc | ctcgcttgct | cgataatggc | agattctcct | cgcaagaagt | attcaagatc | 120 |
| cccctcacct | tggagagagt | aatcaaggtc | taggtcgaga | tccagggtcta | ggcccccaac | 180 |
| ctggtacaag | caccggccaa | ggtcacggtc | cagaagccat | ggcagatcaa | gatccagaag | 240 |
| tcatggcaga | tcagtggatg | agaacaatcc | tggaaacgca | ctttacgtga | ccggtttatc | 300 |
| cactagggtc | actgaaaggg | acctagaaga | ccacttttca | aaagagggga | agggttgcttc | 360 |
| gtgctttctc | gtggtggagc | ctcgcacacg | catctcccgt | ggttttgcat | ttattaccat | 420 |
| ggagactgtt | gaggatgcta | accgctgtgt | caagtatctg | aatcaagtct | gt | 472 |

<210> 1313
 <211> 384
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1313 | | | | | | |
| gcacagtcta | acctgattac | ctacaaagga | cctaccatga | ttgcttgtag | actgcaagca | 60 |
| atcgccatat | tgtaaagga | gagcttggag | tgggattggg | ttatcaatct | cagtgtttca | 120 |
| gattatcctc | tggtaacgca | ggatgatctg | ctttacgtgt | tctccaacgt | atctagaagt | 180 |
| cttaatttca | ttgaacatga | tcagatttct | ggatggaaat | tgaacacag | atctaaatca | 240 |

gttca

365

<210> 1318
<211> 372
<212> DNA
<213> Eucalyptus grandis

<400> 1318

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| gtacgataag | tattccctct | cagtcacccc | cgccgacgat | cctcctgccg | accgcctcct | 60 |
| cccccgccg | ttccgatcct | cccggcgacg | cgacgacaat | ggtgaagccg | agcggcgccg | 120 |
| gcgccgatcg | gggccccccg | ctggcgccgt | tcctcagcaa | gtgctacgag | atggtggagg | 180 |
| acgaggcgac | cgaccccatc | atcgcgctgg | ggagcgccgg | cgacaccttc | gtcatctggg | 240 |
| acatcactca | attcacccctc | cagttgctcc | cccactactt | caagcactcc | aacttctcca | 300 |
| gcttcgatgcg | ccagctcaac | atctacgggt | tcagaaaagt | tgattcagat | cgttgggaat | 360 |
| tcgcaaataga | tg | | | | | 372 |

<210> 1319
<211> 363
<212> DNA
<213> Eucalyptus grandis

<400> 1319

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| accctgtata | atctcaatcc | ttggatttag | agaagatttg | tccaggacaa | gaggagccac | 60 |
| agatgaagca | atccatgcac | tgccgacctt | caagttaaag | ttaaagaaga | acagaaatag | 120 |
| cagtataca | gaaaactcag | cttctgggga | aggagtaata | gctgctggaa | cagaaagga | 180 |
| gcgtgtgatt | tctggggatg | atgctgtctg | ttgcatatgc | ttagcaaaat | atgcaaacia | 240 |
| tgacgagctg | agggagcttc | catgcaacca | tttcttccac | aaggagtgcg | tgataaagt | 300 |
| gctgaaaatc | aatgcattgt | gtcctctatg | caagagtgcg | gtcgggataa | tcacgctggt | 360 |
| atc | | | | | | 363 |

<210> 1320
<211> 401
<212> DNA
<213> Eucalyptus grandis

<400> 1320

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| atggaatgct | atggttatga | ggattaatgt | tgacttttct | gaagtctagg | ttaccccaat | 60 |
| tttgtcactt | ttgctgattt | cccactattt | tcaggccttg | gttggttaa | ctggagattc | 120 |
| atgggtgaat | gtaagtcag | cgcactcactt | gtattgtatg | atatgtagca | actgcttgct | 180 |
| tgagtcacat | cacttgctcc | ataaaccttg | tattgtagtt | ctgtgttttc | acggccagta | 240 |
| agattcacct | tcttatgcat | atctctattt | tcctgatgca | tgagatctcc | ctttctgtta | 300 |
| agctctctta | tttcgtcgat | cagaatttga | tcctttttca | cacgaatacc | cttcaagctc | 360 |
| atttccaatt | ggttttccaa | attctgtagt | tctttttacg | t | | 401 |

<210> 1321
<211> 364
<212> DNA
<213> Eucalyptus grandis

<400> 1321

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcgtgccgc | ggagtcttat | atcagggagc | ttaacatgaa | cctacaagct | gcagagtctg | 60 |
| ataaggagga | tttgaagaag | cagttggatg | aactaaagaa | gcgatcatcg | gataaagaat | 120 |
| gtatccccgt | ggatcaagat | cgcaagatgg | caaacctac | gggaagtagg | tccactgggg | 180 |
| tggaatcga | tgtgaagata | atgggttggg | atgcagtggg | tcgagtagag | agcggccgga | 240 |
| aggatcatcc | tgacgaagg | ttaatgggtg | ctcttcaaga | attgaacttg | gagttgcaac | 300 |
| atgctagtgt | ttctgtgggt | aacgagctca | tgatccacaa | gccacagtta | agatggggag | 360 |
| tcag | | | | | | 364 |

```
<210> 1322
<211> 413
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1322 | | | | | | |
| tttttttttt | ttttttcaaa | ttcaagttgg | gaattttatg | acagtgtagt | ggaagttcta | 60 |
| gacattgctc | ccttgatcct | atggaagtag | aattaaagct | aatcatcaag | ctaaacatga | 120 |
| actacaacta | gtacaaaact | ttacagactc | gtcaaaacc | acaagtttca | ccaccacgca | 180 |
| gaagaagttg | ccatagctcg | attcctccac | cagagataaa | gagctccatc | cttctcttcg | 240 |
| attctataat | tctcgttata | tcccttaat | agattttcta | cagcatcagt | aactgcagaa | 300 |
| ctcaatggga | actgttgaaa | cccggccatc | ctaaaccttg | accctcattt | ccccaaagt | 360 |
| tcatgccttt | caaccttttc | cgtctcctca | caagctatca | tggtggctat | gtc | 413 |

```
<210> 1323
<211> 382
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1323 | | | | | | |
| caacaggatc | ctttgtgtac | tttcttttga | tccacagaaa | gatggatgag | agcaataaca | 60 |
| accctggggg | ggctgataat | gccctgggcg | acgacgggca | gttcaaggag | caagaccggc | 120 |
| tgcttccgat | agcgaatgtt | gggcggatca | tgaagcagaa | cttgccgccg | aatgccaaaga | 180 |
| tctccaagga | ggccaaggag | acgatgcagg | agtgcgtgtc | ggagttcatc | agcttcgtca | 240 |
| caagcgaggc | gtccgataag | tgccggaagg | agaggaggaa | gactgtgaat | ggagacgaca | 300 |
| tctgctgggc | gatgcaagcc | ctaggcttcg | acgactatgc | gagtgccttg | aggaggtacc | 360 |
| tqcatagata | taqggaaata | ga | | | | 382 |

```
<210> 1324
<211> 377
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1324 | | | | | | |
| gcttacaggg | cctgcttggt | gggttaattc | tttttcagct | gatatcgttg | tccttacggg | 60 |
| tatcctcttc | tctccaactc | ctctggttct | ctgttcgcgc | aaagaaatgg | ggagacattc | 120 |
| ttgctgtgtg | aagcagaagc | tgagaaaagg | gctatggtcg | ccgaggaag | acgagaagct | 180 |
| cttcaactac | atcacccgat | tcggcgctcg | ctgctggagc | tctgtaccga | agctcgccgg | 240 |
| taagacatga | tgacagacgg | gaaaggagaa | gctcattcac | agttgttttc | tggggaataa | 300 |
| gtttctgttc | ttggagagaa | tttgattcga | aaaccatgtg | aatgatcgaa | ttctctcgtc | 360 |
| qaatgcacga | ctccaga | | | | | 377 |

```
<210> 1325
<211> 305
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| <400> 1325 | | | | | | |
| tgattccgag | ccgagccgcc | gcggcggtccg | acgacgttcc | ggaagtcgcc | ggatcggcac | 60 |
| cgaaggggca | cgtacaacag | cagcagcagc | cgcaacaggt | cggcgccggc | gagcccaagt | 120 |
| acagggggcgt | gcggaggcgg | cggtggggca | agtacaccgc | cgagatcagc | gaccccgctca | 180 |
| agaaggccccg | cgtctggctc | ggcaccttcg | cctccgccga | ggaggccgcc | cgcgcctacg | 240 |
| acctcgccgc | cgtccggttc | cgcgggtcca | aggccaagac | caacttcccc | gcctccctct | 300 |
| acgac | | | | | | 305 |

<210> 1326

<211> 288
 <212> DNA
 <213> Eucalyptus grandis

<400> 1326
 gtgcttttga gtcagcttcc tcctctgctt ccgaatattg acttctcgag aatacagctg 60
 acttctcata ttcagagtcc gatcgtcgga gtcggcgcgc ttcgataggg aattggctgg 120
 cttcaggttc ctgggggtctg tgctttggat gttaagctcg tagagactga atcgacgatg 180
 gatggttcgc aaggaaaatc gaatgctccg gtcctgttcc tgggtcaagac ctatgagatg 240
 gtcgatgatc ctcagacgga cttcctgggtg tcctggagcg agagcgga 288

<210> 1327
 <211> 190
 <212> DNA
 <213> Eucalyptus grandis

<400> 1327
 gagagagatg gggctccgga ggatgacggg tcagtcgtcg tcccgggtcgg gcgacccggg 60
 cgctccacc agcggcgggc gcgggggcgga gtcgccgcgc cggttcgcgc cggcggctca 120
 gccggagata atgagggccg ccgagaagga cgaccagtac gcctccttcc tctacgacgc 180
 ctgccgcgac 190

<210> 1328
 <211> 259
 <212> DNA
 <213> Eucalyptus grandis

<400> 1328
 gtgggtttcgg ctgcgccggc ccgttcgagg aggagcttcc gcggcggggt ggtggccatg 60
 gccgcgcccg gggtcggtccg gaagtccgag gaggagtggc aggcgggtcct gtcgccggag 120
 cagttccgta tcctgaggca gaaggggacc gaatatccag gcacgggtga atacacaagt 180
 tttctgaaga ggggggtgtac aattgtgcag gatgtgggac tcctctttac cgggtctacaa 240
 ctaaatttaa ctccgctgc 259

<210> 1329
 <211> 381
 <212> DNA
 <213> Eucalyptus grandis

<400> 1329
 gacaggggtt tctgtgttgg attgtgtgtg gagatttggg gggacgagtc atggcggatc 60
 aggccttggg ggggaagcaa ccggttgatc tgtccaagca tccttcagga atcggttccca 120
 ctcttcagaa catagtctca acagtgaatt tggactgcaa attggatctt aaggccattg 180
 ctttgcaagc tagaaatgct gagtataatc ccaagcgttt tgctgctgta attatgagaa 240
 taagggagcc aaagacaacg gcattgatat ttgcttcagg gaaaatgggt tgtactggag 300
 ccaagagtga acaacaatca aagttagcag cgcggaagta tgctcgaatc attcagaaac 360
 ttggattccc ggctaaattt a 381

<210> 1330
 <211> 347
 <212> DNA
 <213> Eucalyptus grandis

<400> 1330
 ccgctctcct ccgccttccg ccaccgcaaa tccctccgat cgatcggcac gacacgaccc 60
 gaaaacgacc ccggaagacc tccgctcccc gcggcggaag atggcggcga gcgacgcgaa 120
 gatcgggagg aggttagagg gcaaggtcgc catcgtcacc gcctccacgc agggcatcgg 180

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| cctcgccatc | gccgagcgcc | tcggcctcga | aggcgccgcc | gtcgtcatct | cctctcgcaa | 240 |
| gcagaaaaat | gtggatgagg | ctgctgaaaa | gctcagggca | aagggtatag | agggttttggg | 300 |
| cttggtttgc | catgtttcca | atgcacagca | gaaggaaatc | ccttggt | | 347 |

<210> 1331
 <211> 337
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1331 | | | | | | |
| gataagtcca | aggggaaggc | caagatcagc | gcctcctccg | cggccgagca | ggagcaccgg | 60 |
| aagcgcggtg | tccgcgagct | caactccctc | atcgccgggc | cctcctccgc | cgccgcccgc | 120 |
| gcccccgacg | acgccgtcga | cgaggaggtc | accgacaccg | agtggttctt | cctcgtctcc | 180 |
| atgacgcagt | ccttcggcaa | cgacggcagc | ttgcccggcc | aggccctgta | cgggtcgacc | 240 |
| ccgcttttggg | tgtcgggcgg | ggaccgcctc | gccgactgcg | gctgcgagag | ggcgaagcag | 300 |
| gcgcgggattt | tcgggctcaa | caccatggtc | tgcgctcc | | | 337 |

<210> 1332
 <211> 325
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1332 | | | | | | |
| gccaatggga | gggaggagcc | tctgaaccac | gtcgaggcgg | agaggcagag | gagggagaag | 60 |
| cttaatcaga | ggtttttacgc | cctcagggcc | gtggttccaa | atgtatcaaa | gatggataag | 120 |
| gcttcactgc | tccaagatgc | ggagtcttat | atcagggagc | ttaacatgaa | cctacaagct | 180 |
| gcagagtctg | ataaggagga | tttgaagaan | cagttggatg | aactaaagaa | gcgatcatcg | 240 |
| gataaagaat | gtatcccggg | ggatcaagat | cgcaagatgg | caaaacctac | gggaagtagg | 300 |
| tccactgggg | tggcaatcga | tgtga | | | | 325 |

<210> 1333
 <211> 362
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 1333 | | | | | | |
| cagcatcatt | ataatgtcca | tgaagagaat | cgactgcggc | atcacgattt | acattagttt | 60 |
| cgctccctt | ttcgcttget | gcacctgtgc | aagcctttga | cttcgtagag | tcatgtgcgt | 120 |
| tccttgggca | cccttctttg | tagctgggtg | agcagggggg | gctacaacgg | atgcttggga | 180 |
| gagtgatatg | cgcgctctcat | cagatgagaa | accgggaata | cgaatgttgt | ggttgcgttc | 240 |
| aagggtgtagt | tgcaggtcgc | gcacttccaa | agtgtcccca | ccgcgatgct | tagccaagcg | 300 |
| acacgcaaag | ttggtgacgg | aatcgatgaa | ttcatcagca | atagaaagca | ggagatcttc | 360 |
| ca | | | | | | 362 |

<210> 1334
 <211> 216
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1334 | | | | | | |
| gtttacgagg | ttgttgatgg | attacttaaa | tgaatttgct | tatgatgcac | gggttgctgg | 60 |
| cctttattac | agtgtgcatg | acaccaacac | aggttttcag | gtcactgtgg | ttggttatag | 120 |
| tcacaagcta | aggatattgc | tggaaaaagt | catcgagaaa | attgcaacct | ttgaagttag | 180 |
| acctgagaga | tttgttgtga | tcaaggaagt | ggtgac | | | 216 |

<210> 1335
 <211> 326

[illegible]

<400> 1335

<210> 1336

<212> DNA

<400> 1336

<210> 1337

<211> 322

<212> DNA

<400> 1337

<210> 1338

<211> 536

<212> DNA

<400> 1338

<210> 1339

<211> 438

<212> DNA

<213> Eucalyptus grandis

<400> 1339

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| cgacttcaag | gagtaccgac | ttcgctgcga | gctgcgcggc | cacgaggacg | atgtccgggg | 60 |
| cgtatgcgtg | tgcggggacg | gcagcatcgg | gacctcgtcg | cgggatcgga | cggtgaggct | 120 |
| gtgggctccg | agcgccggcg | agaggcgcaa | gtacgagggtg | gcgaggggtgc | tgtagggca | 180 |
| caagagcttc | gtgggtcccc | tggcgtgggt | tccgccagc | gaggagcttc | cggagggcg | 240 |
| gatcgtgtcc | ggcgggatgg | acactctcgt | gatggcttgg | gatttgagga | atggagaggc | 300 |
| gcagacgttg | aagggccatc | agttgcaggt | caccggcatc | gtgttgagc | gcggcgacat | 360 |
| ttgtttctgc | ctcttggtga | ttgtacctta | ataagatgga | agaatggcca | gcttacggag | 420 |
| cactgggagg | ctcatata | | | | | 438 |

<210> 1340

<211> 533

<212> DNA

<213> Eucalyptus grandis

<400> 1340

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctttggaggc | cctcagctcc | cccaccgctc | cctccgcccc | gttccaattc | atgaaggact | 60 |
| cctccccgcg | cgccgcggcc | gccgcctcct | cctcctctct | cgctacgac | ctccccctcg | 120 |
| ccgagccctg | ggccaagcgc | aagcgctcca | agcgccccc | caaccgccc | tccgaggacg | 180 |
| agtacctcgc | cctctgcctc | atcatgctcg | cccgcgggcg | cgccggccgg | accctcccc | 240 |
| cgccgcctcc | ccccgcggtc | tcttcgagg | cgcccaagg | ggcctacagg | tgccccgtct | 300 |
| gcgacaagg | cttccccctc | taccaggccc | tggcgggcca | caaggccagc | caccgcaagc | 360 |
| acgcctcctc | cgccctcgcc | gccgcgggg | gtgacgacca | gccgaccacc | tcgagcacct | 420 |
| ccgcgggcgc | gacctcctcc | ggcgctctcg | ggaaggctca | cgagtgtctg | atctgccaca | 480 |
| agagcttccc | accggccagg | cgctcgggcg | gcacaagcgg | tgccactacg | agg | 533 |

<210> 1341

<211> 363

<212> DNA

<213> Eucalyptus grandis

<400> 1341

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| gaagcatttg | ggaagtggac | atggaaggaa | agatcccgac | tttgggtactg | tttctctgca | 60 |
| tcttctcggc | tgccgtcgcg | gccgagtacg | tgccggcccc | gcctcgcgag | accctcgatt | 120 |
| tcccggtggga | cgcaagccc | tcctcttctc | cccagcaggt | tcacatttct | ttagctggag | 180 |
| atggacatat | gcgcatttca | tgggtcactg | atggtaaate | ttccccctca | tacgtggaat | 240 |
| acggaacatc | gcccggctga | tatgactcta | cagctcaagg | agagagcact | tcttatagtt | 300 |
| atctatttta | tagctctgga | aagatacacc | acacgggtgat | cgggccattg | gagagcaaca | 360 |
| ctg | | | | | | 363 |

<210> 1342

<211> 316

<212> DNA

<213> Eucalyptus grandis

<400> 1342

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cctggcctct | gccttagctc | tcctcctcgt | cctcgccctt | atcaagctat | tcagacccaa | 60 |
| aaccaaccac | ctgaacctcc | cgccggggag | atgtggatgg | ccaatcattg | gcgagagcct | 120 |
| ggagttcctc | cgttcccagc | ttgaagggag | cccgagagag | ttcatcaagg | accggatgac | 180 |
| caagtacaac | tcctctgtgt | tcaagacctc | ggtgctcggg | gagccgatgg | tcattctgtg | 240 |
| tgggcccggc | gggaacaagt | tcctgttctc | aaacgagggc | aagaagggtg | tgctgtggtg | 300 |
| gccgagctcg | gtccat | | | | | 316 |

<210> 1343

<211> 322

<212> DNA

<213> Eucalyptus grandis

<400> 1343

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| agggtgttccg | atcttcatag | aagatgatga | tgttgagctg | ttgtggcctg | gcagcttccg | 60 |
| tcaggcggca | caagcacacg | ctcctcaacc | gagttttgtt | ctaactggag | gttctaacat | 120 |
| aagcttcgtc | ggggtgaatc | caccatctga | tgcaggcaat | tcagctcctg | acttgacact | 180 |
| gaaactttta | aagaggttta | tcttcagtta | agtctcatgt | ttgcttaacc | caacattgca | 240 |
| cttctgcttt | cttttggtat | attcccaa | gttctttcca | gttcctttcc | tgtaagtgtc | 300 |
| cactccagta | tgaagtctat | aa | | | | 322 |

<210> 1344

<211> 323

<212> DNA

<213> Eucalyptus grandis

<400> 1344

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| ctggaccgcc | acctgaagac | cctgaccggc | cacgtcgccg | ccgtctcctg | cgtaagttc | 60 |
| tccaacgacg | gcaccctcct | ggcctccgcc | tccctcgaca | aaacccta | catctggtcc | 120 |
| tccaccgccc | tctcctcctc | ccaccgcctc | gtcggccact | ccgagggcgt | ctccgacctc | 180 |
| gcctgggtcct | ccgactccca | ctacatctgc | tccgcctccg | acgaccggac | cctccgcctc | 240 |
| tggtcctccc | gctccccctt | cgactgcctc | aagaccctgc | gcggccacac | cgacttcgtc | 300 |
| ttctgcgtca | acttcaaccc | gca | | | | 323 |

<210> 1345

<211> 235

<212> DNA

<213> Eucalyptus grandis

<400> 1345

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cctccgcccc | gttccaattc | atgaaggact | gggtaccccc | ccgccgacgc | cgccgcctcc | 60 |
| tcctcctact | acgaatacaa | cctccccctc | gccgagccct | gggcccaagc | caagcgctcc | 120 |
| aagcgcccc | acaaccgcgc | ctccgaggac | gagtacctcg | ccctctgcct | catcatgtct | 180 |
| gccccgggcg | gcgcggcgcg | gaccctcccc | ccgccgcctc | cccccgcggt | ctctt | 235 |

<210> 1346

<211> 350

<212> DNA

<213> Eucalyptus grandis

<400> 1346

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtttggagga | agttcaagct | atgggaagga | tgctcaaagc | ccgcaggaca | tgcatgattc | 60 |
| acggccgaca | aaacgaccac | gtaatgttgg | ggagccttat | cgtgaccag | gacaggctga | 120 |
| gccgatggag | gaacatggaa | tgggatcagc | aagtatcct | atggtgcggg | caggcagatc | 180 |
| ggacggaggt | cataatccaa | ttatgtcggc | caccgctccc | gcaaagtgtg | ctacggctgg | 240 |
| gagaggtcgg | gtagatgata | aaaacaatcg | caaattgtcg | tgtaaagagt | gtcgtaggct | 300 |
| aaaactcaag | tgcgaccgcg | ttttcccttg | ccagtcatgc | gtcaagagag | | 350 |

<210> 1347

<211> 197

<212> DNA

<213> Eucalyptus grandis

<400> 1347

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cggactcgga | ctggccgagt | caaccacgc | ccccgcgag | tcccgaaccc | ccggcgccat | 60 |
| gacgcggcga | tgctcccact | gctgcaacaa | gggccacaac | tccaggacct | gccccgtccg | 120 |
| cggcgggcgg | ggggacggcg | ggggcgcggc | ggccgcccc | tcctcctcct | ccccctccac | 180 |

ctcctcctct ggcgccg

197

<210> 1348

<211> 315

<212> DNA

<213> Eucalyptus grandis

<400> 1348

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| cgctggtctc | gcttcctcgg | actatcttcg | cgatcgcttt | tggaggatcg | ttcggggaaa | 60 |
| ttggaccgaa | gtttcgattt | ttagcaggcg | agatcagctg | aatcgggtgt | ccttttgag | 120 |
| gtgatcagaa | taatggagtc | tcacgatgag | acaggatgcc | aggcccaaaa | aggcccaatc | 180 |
| ctctgcatta | acaactgtgg | cttcttcgga | agtgtgccca | ccgccaatat | gtgtctaaaag | 240 |
| tgccacaagg | acgtgatatt | gaaacaagaa | caggcacaag | cagctgcctc | ctcgattgag | 300 |
| agcattgtca | acaga | | | | | 315 |

<210> 1349

<211> 329

<212> DNA

<213> Eucalyptus grandis

<400> 1349

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-----|
| gagagagatg | gggctccgga | ggatgagggt | cagtcgtcgt | cccgggtcggg | cgacccgggc | 60 |
| gcctccacca | gcggcggcgg | cggggcggag | tcgccgcggc | ggttcgcgcc | ggcgggtcag | 120 |
| ccggagataa | tgagggccgc | cgagaaggac | gaccagtacg | cctccttcct | ctacgacgcc | 180 |
| tgccgcgacg | ccatccgccca | cctcttcggc | accagagtcg | ccgtggcgta | tcaaagcgag | 240 |
| acgcagcttc | tcggggcaaat | gctgtactat | gtgctgacga | ctgggttcggg | gcagcagacg | 300 |
| ttgggggaag | agtactgcga | catcactca | | | | 329 |

<210> 1350

<211> 313

<212> DNA

<213> Eucalyptus grandis

<400> 1350

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| tctaggctgc | tctcgattct | cgtgggtctcg | ccttcctcgg | actatcttcg | cgatcgcttt | 60 |
| tggaggatcg | ttcggggaaa | ttggaccgaa | gtttcgattt | ttagcaggcg | agatcagctg | 120 |
| aatcgggaata | atggagtctc | acgatgagac | aggatgccag | gccccaaaag | gccaatcct | 180 |
| ctgcattaac | aactgtggct | tcttcggaag | tgctgccact | gccaatatgt | gctcaaagtg | 240 |
| ccacaaggac | atgatattga | aacaagaaca | ggcacaagca | gctgcctcct | cgattgagag | 300 |
| cattgtcaac | aga | | | | | 313 |

<210> 1351

<211> 305

<212> DNA

<213> Eucalyptus grandis

<400> 1351

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-----|
| ccccgcccac | ttatctgcta | tcctcgctac | ttcgctctat | tagtacctcc | acaatcccat | 60 |
| gcgcaaacgc | caacgcaccc | tcgacatgca | cgccggcgca | ccagggtccca | acgatgccat | 120 |
| tgacgcgaac | agcgtcggcg | acaacgcggt | catcgcggat | cacgacgcaa | ttgactcggc | 180 |
| cggcgacgac | gacnacnacn | aagacaagcc | caagaccggc | cagaagcaag | gccgccgcaa | 240 |
| aataaagatc | gagttttatac | aggacaaatc | gagacgccat | atcaccttct | ccaaaaggaa | 300 |
| agctg | | | | | | 305 |

<210> 1352

<211> 517

<212> DNA

<213> Eucalyptus grandis

<400> 1352

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| gtccctccct | agggtttccct | cctcgtcgac | cgcccttct | ccgagcccta | gcctcgcgcg | 60 |
| gcaaaggccc | ctccctccgt | ccctccctcc | gccgccatga | tgcagcagcc | ggcccccgga | 120 |
| gccgtccccg | accagcagca | gcagtaccag | cagcagcagc | agcagcagtg | gatgatgatg | 180 |
| cagcaggccg | cccagcccgt | gccccgcgcg | gtgggctgga | ccccgcagcc | ggccccgcgcg | 240 |
| cccatggcgg | cccagtcgat | ggccggcgcc | gcggcgccgcg | agatcaagtc | gctctggatc | 300 |
| ggcgacctgc | agcctcacat | ggacgagacc | tatctcctca | actgcttngc | ccactccggg | 360 |
| gaggttctct | cagctaaggt | gattagaaat | aagcagactg | ctctgcccga | gggttacggg | 420 |
| ttcattgaat | ttatgacccg | tgcagcagca | gagaggattt | tgcagacgta | caatggcaca | 480 |
| ttgatgccaa | attctgacca | gaatttccga | ctgaact | | | 517 |

<210> 1353

<211> 472

<212> DNA

<213> Eucalyptus grandis

<400> 1353

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| tttttttttt | tttcagctaa | attggagcag | ctctctttta | tacttactga | actagtaatc | 60 |
| atgggtgaaag | aaacttagac | agaaagttag | gacattacat | catactcctg | aagagcatca | 120 |
| aaggcccgagc | taacagaaaa | aggccgatac | ggcaacatcc | aaacaaatta | aaagccaaat | 180 |
| tgtgacccca | acgctaccat | ccatatacaa | tgcataact | aatcattca | ccttccgaca | 240 |
| tctactctct | ttctacttga | atgggtgacgt | gacttatctt | gtactctctt | ctaagttagt | 300 |
| ccacaacctt | gtccaggacc | atatcggcac | tggcgtcacg | ctttattttg | acatggcagg | 360 |
| ctaatagtac | ctttccaacc | gttatagccc | agatgtgcaa | ttcatggact | gcaatcactt | 420 |
| catcgatctt | gcaaagtcca | ctctcgagcc | tagtggcatc | aatctctcta | gg | 472 |

<210> 1354

<211> 472

<212> DNA

<213> Eucalyptus grandis

<400> 1354

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ccatcgtcac | ctgtatccac | aaaaacacac | ccaccttacc | tctgcacccg | ccccaccgcg | 60 |
| ctatcgcagg | gcctgcgata | cagacgcttg | gctgccaagc | atgaagagaa | gccctccgct | 120 |
| gtgctcgaca | aatcccaaga | tcccacagac | agcgcaaagc | catccaagaa | gccccgccat | 180 |
| cgtcacagtc | ccaccagct | cgctgccttc | aacgaactct | ttgagaaaag | cgaacacccc | 240 |
| actcttgagg | agcgaggcca | gttggtgag | aaattaggaa | tggagaccaa | gaccgtcaat | 300 |
| gcatgggttc | agaacaagcg | tgcttctact | aagaagcgca | ataagggggg | aacctcgga | 360 |
| cctcaccag | ccacgagtca | gaacgacttg | tccgaagatg | ctctcaaaac | cccttccgca | 420 |
| ctgccgtcga | tagcgaacct | gctcaacgac | gcacctcat | cggcctcgcc | gc | 472 |

<210> 1355

<211> 503

<212> DNA

<213> Eucalyptus grandis

<400> 1355

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| cacgcatcca | acttcatcag | gaaggagctg | agggccatca | tcaagcagag | gaagctggac | 60 |
| ttggcagaag | gcagggcgct | ggcgactcag | gacatattgt | cgcacatgct | gttggccacg | 120 |
| gacgaagatg | ggaagcacat | gaacgagatg | gacattgctg | acaagatctt | gggcttggtg | 180 |
| atcgggggcc | acgacactgc | cagtgcgcgc | tgtaccttca | tcgtcaagta | ccttgccgat | 240 |
| cttccccaag | tctacgaggg | agtctacaag | gagcaaatgg | agatcgccaa | gtcaaaagcc | 300 |
| ccaggagagt | tgttgaactg | ggatgacatc | cagaagatga | gatactcatg | gaatgtggcg | 360 |
| tgtgaggtgc | tgcgattggc | gcctccgctc | cagggagcat | tcagagaagc | cctcaatgac | 420 |
| ttcatcttca | atggtttctc | cattccctaaa | ggctggaaga | tctattggag | taccactcgc | 480 |

actcacagga gccagagta ctt

503

<210> 1356
<211> 360
<212> DNA
<213> Eucalyptus grandis

<400> 1356
atcttcttct cccccaaaac cccatcggac ccaaaaaccc taacgaagat gaatagggag 60
aggcttatga agatggcggg ttctgtccgc actggtggaa aggggtaccat gagaagaaag 120
aagaaggctg ttcataagac caccacgaca gatgataaaa ggcttcaaag caccctgaag 180
aggattgggg tgaatgccat ccccgcaatt gaagaagtca acatttttaa ggatgatgta 240
gttatccagt ttttgaatcc caaagttcaa gcgtctattg ctgcaaatac ctgggtagtt 300
agtggttctc ctcagaccaa gaagctacag gatatcctcc ctggcatcat caaccaatta 360

<210> 1357
<211> 377
<212> DNA
<213> Eucalyptus grandis

<400> 1357
aaaacaacct ccctcagctc ctcttcacca ctgggttttg agatgatctg tgtgctcggc 60
gccgttgatt attatgtctt attctgactt gctgaacctg ctgtttgccg tgggcgtttg 120
gtgcaccgcg tatattgcgg ctgccgttct cgagtcgctc cgggtcttcc atactctctg 180
ttcgttttga tttcgatagc tgttttcgaa ggctaagatg ggctacgcac agctggatcat 240
cggccctgcc ggcagtggca agtcgactta ttgctcgagt ttgtatcaac attgtgaagc 300
tattgggcgg acaatacaca ttgttaacct agatcctgca gcaaagaact ttgactatcc 360
tgtggccatg gatatca 377

<210> 1358
<211> 360
<212> DNA
<213> Eucalyptus grandis

<400> 1358
ctctgacgat ggatataact ggagaaaata tggacagaag catgttaagg gctgtgaatt 60
tccacgcagc tattacaaat gtacctatcc taattgtgag gtgaaaaagc ttttcgaacg 120
tgctcctgat ggacatatta cagagattat ctacaaagga actcatgatc accctaaacc 180
acaaccaagc cgccgcttta ctggaggagc gaccatgcc aaccaagaag aaagatctga 240
taggttttca tttataacct cagtggagag cacatcgacc gtatatggcg agacatctta 300
taatgttgag actgatggta ctctgaact atctcctggt gctgagaatg acgaaactat 360

<210> 1359
<211> 347
<212> DNA
<213> Eucalyptus grandis

<400> 1359
gttccaccac gctcgtcccg ctcccgcat tctgaaatcg cgatcgccgt cttcaacctc 60
gggaaaaacc ctageggatc cctccggtc gccaatcat ctctgatcc ccgccgtcgc 120
ccatgccgcc gtcgatcccg ccgcgcccc tctcgccgtc gatctccagc tgatcgcgcc 180
tccgattttg ctccccgccc cggcgcgatg gtggtctgca aatgccgcaa ggctacgaag 240
ttatactgct tcgtgcacaa ggtccctgtg tgtggagaat gcatatgctt tacggagcac 300
caaatatgcy tggttcgtac ttactcagaa tgggttatag atggcga 347

<210> 1360
<211> 326

<212> DNA
<213> Eucalyptus grandis

<400> 1360
ctcctcctcc cctccacct cctcctctgg cgccgcggcn gcggcgggcg cctcngcctc 60
cgggcggggg gtgaagctgt tcgggggttag gttaacggac gggtcgatca tgaagaanag 120
cgccagcgtg ggggtgcctgt ccgccgcca ctaccactcc tcgtcctccg ccgcggcatc 180
cccgaacccc ggctcgtccc cgatcgacgg gagcgacggc tacctgtccg acgatccccg 240
gcccggctcc cgctcgtcca atcggcgcgt cgagaggaag aaaggatcgc aggattttga 300
ttgacgcgcg gtcctctgat tccctg 326

<210> 1361
<211> 526
<212> DNA
<213> Eucalyptus grandis

<400> 1361
atcccactcc ccatccgctc cgctgaatc ctctcctggg aaaattaggg tttctgcaag 60
ctccggattt tcgtccctt ttgggggtcc tcgatttgat gataagccat ggatgcctgg 120
ggctcgtgcta gtgtgctgcg cgcgctcctg tggctcgctt tgcttggggg tggccgcacg 180
gcgtcggcga gcgtcgtcct gatcggcagc aacgtcacc ctccttcgc cgccgtcgag 240
gctgaattcg ctccgccgat taagggttct ggggtttgcg gcgtgctgta tcttgccgac 300
ccgatcgatg cgtgctctca attggtgaat gaggccaacc ggttgccgaa tgctagctcc 360
cctttcgccc taattgtag gggaggagga tgtagtttcg aagagaaagt taggagagct 420
caaaaggctg gattcaaagc ggctattgtc tatgacaacg aagctgatgg caacttggtg 480
ccaatggctg gacattcagc tgggataaag atccatgctg tgttcg 526

<210> 1362
<211> 307
<212> DNA
<213> Eucalyptus grandis

<400> 1362
gacccgcata cccgctgcc aatctggagga cctatttgac aaccataaca tggctcgaat 60
acgggacgta tgggccccga atcttgagat agagatgcag aacatccgcg aggccatcga 120
gaaatactcg tatgtttcaa tggacaccga gttcctggag tgggtggcgcg gcccataggt 180
aacttcaaaa cgtcctcgga ctaccactac cagacgatgc gctgtaacgt cgaccttctc 240
aagatcatcc aagtcgggat cacgctggca gacgaggagg ggttggtccc gcaggactgc 300
tctacgt 307

<210> 1363
<211> 353
<212> DNA
<213> Eucalyptus grandis

<400> 1363
cttgaagggtg acttcaaca acacgatgag gataactgga tccaagaaga gtttgagaac 60
catgtggnta aacaacgtga aggaaagagg ccgcttttga ctggagatct cctagtgaag 120
ctcgaagag gtgttgggaa gctgggaagt ttcattgtta ctgacaattc cagctggaat 180
aggagtaaaa gtttcaggat agggcttaag gtggcctcag gttattgtgg gaacacacga 240
atccgagaag caaaaacata agccttcact gtgagggagc atagaggaga atcatataag 300
aaacattatc cacctgcacc tgacgattaa atctggagggt tggagaagat cgc 353

<210> 1364
<211> 324
<212> DNA
<213> Eucalyptus grandis

<400> 1364
cctcgccccg caaaaccgat tgcgaggtcga gagtcgagta aagatgaatg tggagaagct 60
tatgaagatg gcgggttcag tccgcactgg tggaaagggg accatgagaa gaaagaagaa 120
ggctgtgcac aagacaacta ccacggatga caaaaggctc caaagcactc tcaaaagaat 180
tggggttaat gctattcctg caattgagga agtcaacatt ttcaaggatg atgttgtcat 240
ccaatttgta aatcccaaag ttcaagcctc tattgcagcc aatacatggg ttgtcagtgg 300
tgctcctcag accaagaaat tgca 324

<210> 1365
<211> 306
<212> DNA
<213> Eucalyptus grandis

<400> 1365
gacaaattga tgaacatga atatggatgg gtgtttaaca ctccggttga tgtaaagggc 60
ctcggtttgc atgattacta tagcatcata aagcatccaa tggacttggg cagtgtgaag 120
acaaggctga accggaactg gtataagtca ccgaaagaat ttgcagagga tgtcagactt 180
acgttccgta atgccatgac atataaccct gaagggcaag atgttcatgt catggctgag 240
attctgtaca agatatttga ggatagatgg gccattatag agtcagatta taatcgtgaa 300
atgcgg 306

<210> 1366
<211> 345
<212> DNA
<213> Eucalyptus grandis

<400> 1366
cgccgcctg cagcttttccc ctccgtgtcg acacgacgac gactccgcgg ccgctcccc 60
ctcgcgtcgt ctctccttct ctccgcctgt atatctctc cgtccccga caaaaaaagg 120
agaaatctga agagagggga ctgaaattag gttattgaga aggattcttc ccgtgaccaa 180
tcttttggag aaagatggct tctcaattta atttcaaagg cataaccgat gcatcgcaag 240
ctgaaggagt agctgggaaa tcacacggaa atcactcttt aactcggcag ccatcaatat 300
atgctttgac ttttgatgag tttcaaaaca catgggggtgg gcttg 345

<210> 1367
<211> 292
<212> DNA
<213> Eucalyptus grandis

<400> 1367
cgaaggctc acatttatga aactcaaggc ctgaaggatg catttattat atgtctcaat 60
gccgtagagt ccattgatgc aactaaaaag gggagccttg ctaggttcat aaatcattca 120
tgccagccaa attgtgagac aaggaaatgg aatgtattgg gggagataag agttggcata 180
tttgccaagc atgacattcc tgctggatct gaattgtcat atgattataa cttcgagtgg 240
tatggtggag ccaaggctcg ttgtctctgt ggtgcaccta gctgtctggt tt 292

<210> 1368
<211> 278
<212> DNA
<213> Eucalyptus grandis

<400> 1368
ctgcaacgac ctgacggcgt tgcggcggtt cctgccgtcg aaccaccacc aggacgagga 60
ggacgaggag gacgggcggg cgcccgggga ggacggcgtg ctgggctgag acgagttccg 120
gatgtacgag ttcaaggatga ggaagtgcgc gcgcgggagg tcgcacgact ggacagagtg 180
cccgtacgag caccgcggcg agaaggcgcg acgcagggac ccgcgcgggt tcttctactc 240

cggcactgca tgtcctgatt tccgcaaagg cgcgtgca 278

<210> 1369
<211> 328
<212> DNA
<213> Eucalyptus grandis

<400> 1369
ttcacttcgt cgctgcctc gtcgtcctcc ctgtcctcct cgcgaaatctc catcggcgag 60
aactctgata aagcatccct cggctatctg tcggatggcc tgctgggtag atcccaagag 120
aagaagaaag gagttccatg gacagaggag gaacacagaa ccttcttggg ggggcttgag 180
aagcttggga aggggtgatt gagaggcatc tctaggagct atgtgaccac aagaacaccg 240
gcccaggttg caagtcatgc tcagaaatat ttcctccggc aagtgagctt caacaagaaa 300
aagcggcgct cgagcctctt tgacatgg 328

<210> 1370
<211> 96
<212> DNA
<213> Eucalyptus grandis

<400> 1370
tgaattcggc ggggagttaa tgaatccaag aagcaactgg ctaattgtat ataattgatga 60
tgagggngac atgatgcttg ttggggatga cccgtg 96

<210> 1371
<211> 320
<212> DNA
<213> Eucalyptus grandis

<400> 1371
agagagagaa gaacccttct tcacaaacct ctctctctct ctctctctct cttccctgt 60
gtctgtcgat tctcgctggg ctgcgcttcc tcggattggt tcgatcgcg acgctgaatc 120
gcgccgggaa ttcggccgtg gtttcgattt tgtcgagcga gatcagcaga atcaggagat 180
caggacaatg gagtctcaca atgagacagg atgccagcct ccaaaaggcc caatcctctg 240
catcaacaac tgtggcttct ttggaagtgc tgccactgcc aatatgtgct cgaagtgcc 300
caaggatgtg atgctgaagc 320

<210> 1372
<211> 343
<212> DNA
<213> Eucalyptus grandis

<400> 1372
cggcgcgctg cagctttccc ctccgtgtcg acacgacgac gactccgccc ccgctccccc 60
ctcgcgtcgt ctctccttct ctgcacctgt atatatctct cgtccccga caaaaaaagg 120
agaaatctga agagagggga ctgaaattag gttattgaga aggattcttc ccgtgaccaa 180
tcttttgag aaagatggct tctcaattta atttcaaagg cataaccgat gcatcgcaag 240
ctgaaggagt agctgggaaa tcacacggaa atcactcttt aactcggcag ccatcaatat 300
atgctttgac ttttgatgag tttcaaaaca catgggggtgg gct 343

<210> 1373
<211> 310
<212> DNA
<213> Eucalyptus grandis

<400> 1373
ctccccctcg ccgagccctg ggccaagcgc aagcgctcca agcgccccca caaccgccc 60

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tccgaggacg | agtacctcgc | cctctgcctc | atcatgctcg | cccgcggcgg | cgccggcccg | 120 |
| accctcccc | cgccgcctcc | ccccgcggtc | tcttccgagg | cggccaaagg | ggcctacagg | 180 |
| tgccccgtct | gcgacaagg | cttccccctc | taccaggccc | tgggcggcca | caaggccagc | 240 |
| caccgcaag | acgcctcctc | cgccgcggcc | gccgcgggg | gtgacgacca | gccgaccacc | 300 |
| tcgagcacct | | | | | | 310 |

```
<210> 1374
<211> 306
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1374 | | | | | | |
| agcaagcaaa | agaagaaacc | agaaaaatca | gacaccccga | tttcacattc | tctactacag | 60 |
| aattccggag | atggtgaaga | gagacagaga | ggacacggag | gtcgaagccc | tggccagggc | 120 |
| caattgcttg | atgctcctct | cccgtgtttg | cgagagcacc | gactcggcgt | cgccggaccg | 180 |
| caaatcgcg | cctacagagc | gaatgttcgc | ctgcaacact | tgcaaccgcg | agttctnctc | 240 |
| gttccaggcg | ctcggagggc | acaaagccag | ccacaagaag | cagaagctga | tctccggtga | 300 |
| cctctt | | | | | | 306 |

```
<210> 1375
<211> 273
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1375 | | | | | | |
| cctcctcctc | ctgctgcggc | tacgacctgc | ccctcgccga | gccctggggc | aagcgcaagc | 60 |
| gcttcaagcg | ccccacaac | ccgccctccg | aggacgagta | cctcgccttc | tggctgatca | 120 |
| tgctcgcccg | cggcggcgcc | ggccggaccc | tacccccgcc | gcctcccccc | gtggctctct | 180 |
| ccgaggcggt | caatgtggcc | tacaggtgcc | ccgactgcga | caagggcctc | ccctcctacc | 240 |
| aggccctggg | cggccacaag | gccagccacc | gta | | | 273 |

```
<210> 1376
<211> 319
<212> DNA
<213> Eucalyptus grandis
```

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> | 1376 | | | | | |
| gacaaatgag | aaccctagga | cgccttcagt | cgacaaggag | agcactactc | caaggacgtc | 60 |
| gaaatcagaa | gaggagcaga | gcgacacgag | caactcgcaa | gagaagggtgc | tcaagaaacc | 120 |
| tgacaagata | cttccttgcc | ctcgatgtaa | tagcatggac | accaaattct | gttactacaa | 180 |
| caactataat | gtgaaccagc | cccgacactt | ctgcaagaac | tgccagagat | actggacagc | 240 |
| tggtggaacc | atgaggaatg | ttcctgtggg | tgctggccgc | cgcaagaaca | agaactcggc | 300 |
| atctcattac | cgtcatcta | | | | | 319 |

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<210> 1377
<211> 339
<212> DNA
<213> Eucalyptus grandis
```

| <400> 1377 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tctctctctt | cgtttctccc | gtttctctct | ctctacctct | cgccaagaaa | ccgccaggaa | 60 |
| aggaaggaag | gtaaaaagaa | aagaaaagga | agccatggct | ccgagagaaa | agcccagcgt | 120 |
| cgccgccatc | ccaaacccta | acggcgctaa | ggaaatccgt | ttcggggcgc | tccggaagag | 180 |
| gccctggggc | cgctacgccg | ccgagatccg | ggaccccggc | aagaagaccc | gggtgtggct | 240 |
| cggcaccttc | gacacagccg | aggagccgcg | ccgcgcctac | gacaccgccg | cccgcgagtt | 300 |
| ccgcgcgcgc | aagcccaaga | ccaacttccc | caccttcgcg | | | 339 |

<210> 1378
 <211> 343
 <212> DNA
 <213> Eucalyptus grandis

<400> 1378
 ctttgacgcg cattaaattc ccgcgactcc gaaatatctc acctccctct cccgcagaat 60
 ccctagattc cttccttagc tcctcctctc tccctctctc tctctctctc tctatagaaa 120
 attcctcatc tttggtggcg gcgagaggcg gttgcgaggg atttccggtc gcgggtgtat 180
 gtgcggtggg ttgggggttg ggtgggggag atgaagattc agtgcaacgt gtgcgaggcg 240
 gcggaggcga gcgtcctctg ctgcgccgac gaggcgggcg tctgctgggc ctgcgacgag 300
 aaggtgcacg ccgccaacaa gctcgccagc aagcaccagc gcg 343

<210> 1379
 <211> 368
 <212> DNA
 <213> Eucalyptus grandis

<400> 1379
 ctcgattctc gctggtctcg ccttcctcgg actatcttcg cgatcgcttt tggaggatcg 60
 ttccgggaaa ttggaccgaa gtttcgattt ttagcaggcg agatcagctg aatcgggaga 120
 tcagaataat ggagtctcac gatgagacag gatgccaggc cccaaaaggc ccaatcctct 180
 gcattaacaa ctgtggcttc ttccggaagt ctgccaccgc caatatgtgc tcaaagtgcc 240
 acaaggacgt gatattgaaa caagaacagg cacaagcagc tgcctcctcg attgagagca 300
 ttgtcaacag aagttccaac gaaaatggta aaggacctgt ggcaactgaa aattggattt 360
 gcaagctg 368

<210> 1380
 <211> 362
 <212> DNA
 <213> Eucalyptus grandis

<400> 1380
 gaggctcagt acttcgtgta gccatggggc atgaaagtga agcatttgaa gagtttgttg 60
 atgcgcacaa aacttgcttg aatgatctca tgttcttccc tactcgtaat gccttggact 120
 ctcaagtgtt gctgcaaatt cagaaaagct tgctgccttg cagaacgaat atcattttgc 180
 taaagcaagg attgatgaag atcatgagaa ggcgagcgga ctggagaaga aggtcaaaac 240
 tctcacattc ggctatcaga tgcgggagaa gactcttcga gaccaaattg agtcaacctt 300
 caagcagctg gacactgcag ggacagaact cgagtgtttc ccagctctgc agaagcaaga 360
 gc 362

<210> 1381
 <211> 459
 <212> DNA
 <213> Eucalyptus grandis

<400> 1381
 tgctcgcaaa gtttgtttct ttgctcaciaa gcccgaaaga ttaaggcctg tctatgcttc 60
 gacgggatca gctatgcctt ccccaaaatc ctactcatca agtgggctgg acatgtccac 120
 attgagtcct ctctcaatca gttctccgtc agcatcgctg cctgttactt caacagcacc 180
 catgtctcct cttgcagcct cgtcatctcc gatgtctgtg aacatgtggc agagcaaggc 240
 taacaagctc tccccgccaa tgctgcagct ctcaggtagt aggtgaaga ctgctttgag 300
 tgctagggac ttggacctgg agatggaatt gcgtggctca gagagtcaga tggccactca 360
 acagcatcag ttgatggaag agatatctcg tctctcctca ccatcatcct gcttttagtag 420
 taggattggg gaagtgaaac ccactaacct cgatgacgt 459

<210> 1382

<211> 319
 <212> DNA
 <213> Eucalyptus grandis

<400> 1382
 aaaaaaagaa gcataacttc aacgagcgaa tctccctctg tctctgggtc atctttgggt 60
 cttcaggctc agaaccatgg ctcagactgt tgttctcaag gttaaaatgt catgtcaagg 120
 ctgcgctgga gctgtcagaa gggtcctgga aaaaacggaa ggtgtggaaa catttgacat 180
 cgatctgaag gaacagaagg tgacagtcaa gggcaatctg cagcccgatg ctgtcctgca 240
 aaccgtctca aagtccggaa aacaaactgc tttctgggaa gcggaagccc cagcccaacc 300
 cgaagtgaag cccaccgaa 319

<210> 1383
 <211> 408
 <212> DNA
 <213> Eucalyptus grandis

<400> 1383
 cttgctttcc tcttgttggg ccaacgcaga gagaagagag agagagagag gtggaagaag 60
 atcaatctcg tatctgaccg gcgaccggtg gtgctcttca tcttctccac ctcatcctct 120
 ctctctagag aaccgaaagc cggcgtcttt cgtcgtctcc ggttcggcat gaacgggaag 180
 gccaacgtct ccaaggagct caatgcgcac cacagaaaga ttctcgaagg gcttctcaaa 240
 ttgcctgaga acagggagtg tgctgattgt aaggccaaag gtccaagatg ggctagtgtc 300
 aatttaggga tatttatatg catgcaatgt tcaggaatcc atagaagtct tggggtacac 360
 atatcgaagg tccgatcagc tactttggac acatggcttc cagagcag 408

<210> 1384
 <211> 315
 <212> DNA
 <213> Eucalyptus grandis

<400> 1384
 gcaaaattgg gcccttcaa aattactggg aggtcttctc ctaaattgcct agaaggatcc 60
 gatggaagaa atttgcagct acaattcagg accaggttgt cgtccccgt ctttactgga 120
 ggcaaagtgg aaggcgagca aggtgctgca atccatgtcg tcttaatgaa tgcagataca 180
 ggctgtgctg tcacatcagg tccagagtcc tctgtgaagc ttgatgttgt tgtccttgaa 240
 ggggatttca acaatgaaga tgatgacact tggactcagg aagaatttga cagtcatgta 300
 gtgaaagaac gtgaa 315

<210> 1385
 <211> 375
 <212> DNA
 <213> Eucalyptus grandis

<400> 1385
 gttctcgaga acccagctcc atcccagttc gacccatctg agaacaagtc aaccagatc 60
 gtcaaaatcg aatcttgact cgagggagaa gcggagaatg acgaagcgca gcgcagccaa 120
 ggccgcggcg gtgcacgagg gcgagggagc gaggagcgag ctgaagttca gaggggtgcg 180
 gaagaggaag tggggcaggg gggctctccga gatccgcctg cccaacagcc gggagaggat 240
 ctggctcggc tcctacgaca ccccgagaa ggcgggccgc gccttcgacg ccgcccctt 300
 ctgcctcggc cgcgccgcg cgaagctcaa ctnccccggc agccccccg agatctccgg 360
 cgcggcgtcc ctctc 375

<210> 1386
 <211> 332
 <212> DNA
 <213> Eucalyptus grandis

<400> 1386
 ccgaataacca ccaccgcgaa aatgatgatc ggcgagtgccc gccaccaccc cctccacccc 60
 acgacggttt gcatccctcc tccgctgtgg ccgtccctcg acgatcccgc cgacgagatc 120
 tccccgcct tgcacgcgga ccacctcgcc gccgtcgccg ccgcttctag tccgtacgct 180
 ctgcaggaca tcatcgcggc gctgcgccgc caccagtccg acccggactc cgacggcccc 240
 gactcgccgg tggacctcta cacgtccgat cacttccgca tgtacgagtt caaggtccgg 300
 cgggtgcgcg gcggcaagtc ccacgactgg ac 332

<210> 1387
 <211> 320
 <212> DNA
 <213> Eucalyptus grandis

<400> 1387
 ggaacctttt tggttttttt ttggcgctcg ggcaccgggt cgggagtttg gctgcaatgg 60
 ctggntgagg cacagaatga ggttgacgta tcaagtgcct tggtcacctg tcccaatcgt 120
 ccttccaaag ttgggtcaca attggaagct gtggataatc tgaaagagtt gcaggtcctg 180
 gaaaatgacc agacacctaa ggtgaggaag ccttacacca tctccaagca aagagagaaa 240
 tggacggacg aagagcatga gaggttcctt gaagctttga aactgtatgg ccgcggttgg 300
 cgtcagatag aagagcatgt 320

<210> 1388
 <211> 409
 <212> DNA
 <213> Eucalyptus grandis

<400> 1388
 ttcagttagt gctcttccac cctctaaagc ctcatttctt cgtcgcaacg cagcagtacc 60
 gtccggatat acaacctgtc cgagcaaaaa ttgttgaaga cgctgacgcc tggatatcaa 120
 tggatatctt ccatggatgt tcaccgcgct ggcgatcatc tcatcgttgg tggctacgac 180
 cgaaaactgt gctggtttga cctggaactc agtgacaagc catacaagat ttacgatat 240
 cacacacgcy gcattcgttc tttggcgttc caccacaacat atccactatt tgcgtcctcg 300
 tcggacgacg gcgctatcca ggtgttccat tccagagtgt ataacgacct gatgacggat 360
 cctttgatcg tccctctgaa aattctccga ggacatactg taaaggaag 409

<210> 1389
 <211> 313
 <212> DNA
 <213> Eucalyptus grandis

<400> 1389
 cggactcgga ctggcgag tcaaccacg cccccgcga gtcccgaccc cccggcgcca 60
 tgacgcggcg atgctccac tgctgcaaca agggccacaa ctccaggacc tgccccgtcc 120
 gcggcggcgg cgtcggcggc ggggacggcg ggggcgcggc ggccgcccc tctctctct 180
 cccctccac ctctctctet ggcgccgcgg cggcggcggc ggctcggc tccggcggcg 240
 ggggtgaagct gttcgggggt aggttaacgg acgggtcgat catgaagaag agcgccagcg 300
 tggggtgcct gtc 313

<210> 1390
 <211> 329
 <212> DNA
 <213> Eucalyptus grandis

<400> 1390
 cgagaatcca gctccatccc agttcgaccc atccgagaac aagtcaaccc agatcgtcaa 60
 aatcgaatct tgactcgagg gagaagcgga gaatgacgaa gcgcagcgca gccaaaggccg 120

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| cggcgggtgca | cgagggcgag | ggagcgagga | gcgagctgaa | gttcagaggg | gtgcggaaga | 180 |
| ggaagtgggg | caggtgggtc | tncgagatcc | gcctgcccac | cagccgggag | aggatctggc | 240 |
| tcggctccta | cgacaccccc | gagaaggcgg | cccgcgcctt | cgacgccgcc | gccttctgcc | 300 |
| tcggccgccc | gccgcgaagc | tcaacttcc | | | | 329 |

<210> 1391
 <211> 156
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1391 | | | | | | |
| cggacccgat | gggcgagatg | gtcgcctccc | tcaggaacct | gcagctcgac | aaagtgaagt | 60 |
| ccatgccttg | cggcgggtcc | acttcgggt | cgccgagggc | ctccaggatc | cgaccggggg | 120 |
| tctacagtat | gcccacgacg | ccgacacagt | ccaccc | | | 156 |

<210> 1392
 <211> 555
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1392 | | | | | | |
| gaagctcgac | acgcgatttc | cggctgcaag | gatcaagaag | ataatgcaag | cagatgaaga | 60 |
| tgtagggaaa | attgcattag | cagttcctgt | tctagtctct | aaagcattag | aattattttt | 120 |
| gcaagacctt | tgtgaccgta | catacgagat | aacacttcaa | aggggagcaa | agactatgaa | 180 |
| ttcgctgcat | ttaaagcatt | gtgtgcnaag | ctataatgtg | tttgatttcc | tgaggagat | 240 |
| tgtcagcagg | gttcctgact | atggtcattg | tcattggtcat | tcagatgctg | tctctgagga | 300 |
| tagaacagtg | tccaggagaa | ggaaggccac | catcgatgat | ggtaatgaca | ctgatgagga | 360 |
| atccaagaag | agcaggatgc | ttgagatggc | ccatactggc | agcagtggca | gaggaagagg | 420 |
| ccgtggccga | ggaagaggcc | gcgggcgtgg | tggccgagcc | actgagaggg | agactgcgca | 480 |
| ccatgaaact | gaatcatctg | agccgaccac | atctctgcaa | cctgtcaaca | agaacattgt | 540 |
| caatcaagga | acagt | | | | | 555 |

<210> 1393
 <211> 525
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1393 | | | | | | |
| cgccggatccc | gcgagcgtct | cccccaagtg | ccccttcggc | tacgacgcgc | cgccggattc | 60 |
| cgggggccatc | tcccccaagt | gccccctcgg | ctacgactcg | cagacgttca | agctcggccc | 120 |
| tctcagctgc | atgatctgtc | aggcccttct | gttcgattgc | gccaaatgcg | tgccctgttc | 180 |
| tcacgtcttc | tgcaaggcat | gtatattgcg | atttaaggac | tgcccactct | gtggagctga | 240 |
| tattgagggc | acagaagccg | actcgaatct | tcagagcaca | gttgatcggg | ttatcgaagg | 300 |
| ccatggtaga | attaagagg | cccatgttga | gaatgttgat | aaagaggaag | ttagcgcgaa | 360 |
| ggagacgggtg | atatatgagg | acgtgtcttt | ggaaagagg | gctttcttgg | ttcaacaagc | 420 |
| catgcgggct | tttcgtgctc | aaaatgtgga | aagtgccaaa | tcaagactca | gtgtctgtgc | 480 |
| tgaggatatc | agagatcaga | taacaagaac | aggcagcacg | tcaga | | 525 |

<210> 1394
 <211> 443
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1394 | | | | | | |
| caatgtgtgg | gggcgccatc | atctccgact | tcattcccaa | ccagagggcc | cgccgattga | 60 |
| cctcggactt | cctgtggccc | gatctgaaga | gatcgccgg | caagcagtcg | aggcggccgg | 120 |
| ccaggtcgga | ggtcgtcgat | gtcgtggacg | atgacttcga | ggccgacttc | cagggcttca | 180 |

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| catttcaatg | gaagtatgct | caatgatact | aactcatctg | gtgaaagtca | cacacgtaat | 180 |
| ggaaggccac | gaggagatgc | caggggaagg | aatcaattac | ttcctcggtta | ctggcccagg | 240 |
| ataacagatc | aagagctaca | acaaatctca | ggagactcga | actctgtaat | cactcctctg | 300 |
| tttgagaaaa | tggtgagtgc | tagtgatgca | ggtaaaattg | gacgtttagt | gctgccaaga | 360 |
| aaatgtgccg | aggcctatct | tccgtctatt | tctcagcttg | aaggattgcc | actcaaagtt | 420 |
| caggatgccca | aaggctcggg | gtggatattt | caatta | | | 456 |

<210> 1399
 <211> 474
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1399 | | | | | | |
| aagttgagga | agtcgagttg | gagttctcgg | agggtgaaat | ggcggcctga | ttgagggcct | 60 |
| tggtggggct | tgattggaag | gatttgatgg | agctgttcac | tccaaaggca | ttgtcttctt | 120 |
| gagatgcgga | cttcaaacca | gcagcgtcct | tggtggattt | ggtaggcggc | ctgcgagtcg | 180 |
| tgccgttctc | agaccagct | tgctctcggc | tcttggtctc | ttccaagtac | atttcttcga | 240 |
| ccatgggctt | ccagaggcga | acccgagcgt | tgatgaacca | gtagacacc | tggtcctctg | 300 |
| ttagtcccg | ttgttttgcg | agcatgtgtt | tgtccgaatc | tttgggatag | ctgcaattgc | 360 |
| aacacgccag | aatgttgaat | gtacaattgc | aactcaaaca | taaagcgtgg | tcgtcaacca | 420 |
| tgaacatggt | ttaaattact | cctatgatct | acagttgatc | gaacttacct | ttgg | 474 |

<210> 1400
 <211> 443
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1400 | | | | | | |
| gccccgtctt | ccncaaggcc | atcggcgagc | tccacggcca | ctccggcatc | gcgcggctca | 60 |
| tgctcttcta | cgcccgcagc | ctcttcggcc | tcgtcgacca | ccggaatggc | atgggcgctc | 120 |
| cgaacgcggg | cctcgtgtac | ttcgacggcc | acctcctcgc | gatgtccgag | gacgacctcc | 180 |
| cctaccagct | gcgcgtcacg | cgtccggcg | acctcgagac | cgtcggccgc | tacgacttcg | 240 |
| ccggccagct | cgactctccg | atgatcgccc | acccgaagat | cgacccggct | tccggcgaga | 300 |
| tgttcgccct | cagctacgac | gtcgtccgga | agccgtacct | caagtacttc | cgattctcca | 360 |
| aggacggcga | gaagtcccc | gacgtcgaga | tccccctggc | tgagccgacc | atgatgcacg | 420 |
| atttcgccat | caccgagcgc | ttt | | | | 443 |

<210> 1401
 <211> 481
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1401 | | | | | | |
| atgagctgag | aatagccgaa | gcatggatgt | ggagatagcg | gcgacagcgg | cgggacgctg | 60 |
| aatatactct | ccttggtccc | ttccccaacg | tcccagaacc | ccctccagct | cgacggcgctc | 120 |
| agcggacatg | tatccctgcc | gctcgccacg | tccgcagtgt | gctccttctt | caccacttta | 180 |
| taactgcgcg | cggcactcat | ctcggactcg | gcgctctccg | cggcggcttc | ctctcttgct | 240 |
| ctcttgcgag | aagcatccgc | cggggccagc | gacggttccg | tcgacgtcgg | ctcgtcgcg | 300 |
| cccgcctcga | tcgggaagtt | caggatggcc | ttgctcccg | ggagcctgaa | cgcgccgcgg | 360 |
| tcgtaggcct | gcgctgcctc | caccgcgctg | tcgaacgtcc | ccagccacac | gcgcgtcccc | 420 |
| ttgcgcgtcg | ggtcgcgtat | ctccgcgcg | aacttcccc | acggccgcgg | gcgcacgccc | 480 |
| c | | | | | | 481 |

<210> 1402
 <211> 384
 <212> DNA
 <213> Eucalyptus grandis

<400> 1406
 actgggcaaa atattcctat ctctactgca tatatagggc tcgggagaga gagagagaga 60
 gagagactgc acagtatagt aatactaaat aatacacctc ctttagactt gactgaagat 120
 acaggcacia ccctagtaag agaagaagga gaaggggaag atgaagggtga gaaggaagct 180
 gagggagccc aggttctgct tccagacgag gagcgagggt gatgtgttgg acgatggcta 240
 caaatggagg aagtacggcc agaaagtggc caagaacagc ctccacccca gaagttatta 300
 ccgttgcact cacagtaatt gccgagtga gaagaggggt gagcgggtgt cggaagattg 360
 tcggatgggtg ataacgacct acgagggcag acataaccat tccccgtgcg atgactcgaa 420
 ttcacccgaa catgaagggt tcaactcggt ctagtattgc cccaagacag a 471

<210> 1407
 <211> 471
 <212> DNA
 <213> Eucalyptus grandis

<400> 1407
 agcaagcaaa agaggaaacc agataaaagc agacacctcg gtttcacgtt ctctactaca 60
 gaattccgga gatggtgaag agagacagag aggacacgga ggtcgaagcc ctggccctgg 120
 ccaactgctt gatgctcctc tcccagatcg gcgagagcac cgactcgcca tggctgaacc 180
 acaaatcccc gcctacggag cggatgttgc cgtgcaagac gtgcaaccgc gagttttcat 240
 ccttccaggc actcggaggg cacagagcca gccacaagaa gccgaagctg tccggcgatc 300
 tctttcacct agggcgctcc gcggattcct caccggccaa gccgaagacg cacgagtgcg 360
 ctatatgcgg cctcgagtcc ccgcttggca agcccttggc ggtcacatga ggaggcacag 420
 ggccgccatg gcggagagct tggcgacggc cgaaaagcct gtgccggtgt t 471

<210> 1408
 <211> 303
 <212> DNA
 <213> Eucalyptus grandis

<400> 1408
 gcgcccttct cgaatccata cgaggagctg gcgaaccact tgctgctgga cgatcccga 60
 tcggaccttt cggttcactt cccttccttc gcttccgac cccaaccctg caactccgct 120
 gtatctccta gttttagcgt ggatggggat ttcttttccg actatggcga cacctcggat 180
 cccacgttga aatacataaa tcagatgctc atggaggagg acatagatga caaacctgt 240
 atgtttcatg atccttttagc tctcaagctg cagagaaatc cttatacgat gctctctgtc 300
 cga 303

<210> 1409
 <211> 367
 <212> DNA
 <213> Eucalyptus grandis

<400> 1409
 aatctcagga gactcaaact ctgtaatcac tctctgttt gagaaaatgt tgagtgctag 60
 tgatgcaggt aaaattggac gtttagtgct gccaaagaaa tgtgccgagg cctattttcc 120
 gcctatttcc cagcctgaag gattgccgct caaagttcag gatgccaaag gctcggagt 180
 gatatttcaa tttcgattct ggcccaataa taacagtaga atgtatgttc tggaaggagt 240
 cagcccgctg atacagtcca tgcagttgca agcaggagac atagtgcacat ttagtcgggt 300
 agaacccgag ggaaaattgg tcatgggatt cagaaaggct tcaactgctc cctcatctga 360
 tcaggaa 367

<210> 1410
 <211> 353
 <212> DNA
 <213> Eucalyptus grandis

<400> 1410
cattaccacc accaccacca aaactctctc tctacccttc tctctctgcc cttctctctc 60
tagaattttat ggcatgaag gagaaggcgg gtccggggcg cgccgccagg ctggcggtga 120
gggaggcgca ctaccggggg gtgaggaaga ggccgtgggg gcggtacgcg gcggagatca 180
gggacccgaa gaagaagagc cgggtgtggc tcggcacctt cgacaccgcc gagggaggccg 240
cccgcgccta cgactccgcc gcccgcgact gccgcggctc caaggccaag accaacttcc 300
ccctccctc ggagcgcccc gtcctcctcc tcgccggagc cgacggagga gca 353

<210> 1411
<211> 586
<212> DNA
<213> *Eucalyptus grandis*

<400> 1411
atcagggtccc gcgccactcc attcgcnat ctccgacctc ctctctccac gcggccactg 60
tcccgtcgcg cgaattcgcc ccgccgtcgt aggagaccgc atcctccgcc gccgcggcga 120
tggccccagc ttcattccct gcgctagcaa cgcatttcaa tggaagtatg ctcaatgata 180
ctaactcatc tggtgaaagt cacacacgta atggaaggcc acgaggagat gccaggggaa 240
ggaatcaatt acttcctcgt tactggccca ggataacaga tcaagagcta caacaaatct 300
caggagactc gaactctgta atcactcctc tgtttgagaa aatgttgagt gctagtgatg 360
caggtaaaat tggacgttta gtgctgccaa gaaaatgtgc cgaggcctat tttccgtcta 420
tttctcagct tgaaggattg ccactcanag ttcaggatgc caaaggctcg gagtggatat 480
ttcaatttcg attctggccc aataataata gtagaatgta tgttctggaa ggagtcacgc 540
cttgcataca gtccatgcag ttgcaagcag gagacatagt gacatt 586

<210> 1412
<211> 427
<212> DNA
<213> *Eucalyptus grandis*

<400> 1412
gcttttccctt acctaagatc gccagtagat catcgctcca tttcgctcct tctcctccat 60
cgtcttcccg ttggtgtttc ggggaagccat ggatcttgag taccagaag agttcttggg 120
cgggtgccac gaccaccatt cgcagatctc caagggcaag cgcacgaagc gccagcggcc 180
ggcctccccg agcggcgggc gctgcgtcgg cgccgacgcc ggctggcca ccgggagggc 240
cggcttctac gtctacgagt gcaagacttg cagccgcgtg tttccgtcgt ttcaagcgtc 300
aggagggcac cgtgccagcc acaagaagcc caagtccagc gccgatcctg accagaaaat 360
caagccgtcg acggtggtcc tgggcttgga cgcaattgac gacgaagacg aggggcactc 420
cggtaaa 427

<210> 1413
<211> 375
<212> DNA
<213> *Eucalyptus grandis*

<400> 1413
gaaagtgacc cactggctgc cctgtgtaat ctggaaatcg acaatgtgaa ttctctgttc 60
gttttccatg gctttgggtga tgatgacatt tgtggacaca tatgcaaact tccagtaggg 120
gcagatctga tagagaacct gcatgttagt cagcaattct gagctcgtag gttcttcgca 180
cttgagcttt cggtaaatta tgctcccgga aaatttcaat ttccgcctaa gcccttccaa 240
gaggtaaagca ccaagacgct gaatcggtc gcccataacc gacaccattt gctccagcat 300
atccattaga gctgctgcac tagaagtatc ggcacagag attgcccttg ccaggcgatt 360
accacttggt tcaag 375

<210> 1414
<211> 369
<212> DNA

<213> Eucalyptus grandis

<400> 1414

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcaaaatgg | acttgtgctg | ataacagttg | ggatccagaa | agatcatctt | gctcggcgga | 60 |
| tcaagacttg | acggcagaag | agcttgaaga | tatgctatct | aataataatc | cagcaccttc | 120 |
| taagaaagct | aaggctccta | aacaagagaa | tatggaagca | ctggaggggc | tggaactctt | 180 |
| tgccaacctg | gcaatcttag | gagaaggcga | gggtgtccca | tcattctctt | catcatctca | 240 |
| agccacaaca | aagcaccctc | gacaccgacc | agggtgttca | tgtattgttt | gtatacaacc | 300 |
| ccccagtggg | aaggggccaa | aacacaagcc | aacatgcaca | tgtaatgtct | gtctgaccgt | 360 |
| aaagcgcgt | | | | | | 369 |

<210> 1415

<211> 313

<212> DNA

<213> Eucalyptus grandis

<400> 1415

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| gccgattacg | acgagggcgg | cgacgacaat | ccggggagcc | gccacccggg | gaccggcgag | 60 |
| ttcttcccgg | tgaggaggga | ggaggagctg | gaagaggatg | gcgagcgggc | aggaatgggg | 120 |
| ggagccgcag | tgccggccgg | gttcccaggg | gcgcactggg | tcggagtcag | gttccgcccag | 180 |
| tcggatcacc | atccaatcgg | atcgggcaag | ggctcaccga | tattggaggg | ttcacagccc | 240 |
| atgaagaaga | tcaggaaagg | gccgaggtcg | cggagctccc | agtatagagg | ggtcactttt | 300 |
| tacaggcgaa | ctg | | | | | 313 |

<210> 1416

<211> 489

<212> DNA

<213> Eucalyptus grandis

<400> 1416

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| ctcttcgaaa | accctttctc | tctcttcgat | ctctctctct | ttctctctcc | tctgtgattg | 60 |
| cagatcaggg | tcccacgccc | ttccattcgc | gcattctcga | cctcctctct | ccacgcggcc | 120 |
| actgtcccgt | cgcgcggaatt | caccccgcgg | tcgtaggaga | ccgcatacta | cgccgcccgg | 180 |
| gcgatggcgg | cgccacgagg | agatgccagg | ggaaggaatc | aattacttcc | tcgttactgg | 240 |
| cccaggataa | cagatcaaga | gctacaacaa | atctctggag | actcaaactc | tgtaatcact | 300 |
| cctctgtttg | agaaaatgtt | gagtgctagt | gatgcaggta | aaattggacg | tttagtgctg | 360 |
| ccaagaaaat | gtgccgaggc | ctattttccg | cctatttccc | agcctgaagg | attgccgctc | 420 |
| aaagtccagg | atgccaaagg | ctcggagtg | atattttcaat | ttcgattctg | gccaataat | 480 |
| aacagtaga | | | | | | 489 |

<210> 1417

<211> 372

<212> DNA

<213> Eucalyptus grandis

<400> 1417

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| catcggcgag | ctccacggcc | actccggcat | cgcgcgggctc | atgctcttct | acgcccgcag | 60 |
| cctcttcggc | ctcgtcgacc | accggaatgg | catgggcgtc | gcgaacgccc | gcctcgtgta | 120 |
| cttcgacggc | cacctcctcg | cgatgtccga | ggacgacctc | ccctaccacg | tgcgcgctcac | 180 |
| gcgctccggc | gacctcgaga | ccgtcgggcc | ctacgacttc | gccggccagc | tcgactctcc | 240 |
| gatgatcgcc | cacccgaaga | tcgaccgggc | ttccggcgag | atgttcgccc | tcagctacga | 300 |
| cgctcgtccg | aagccgtacc | tcaagtactt | ccgattctcc | aaggacggcg | agaagtcccc | 360 |
| cgacgtcgag | at | | | | | 372 |

<210> 1418

<211> 354

<212> DNA

<213> Eucalyptus grandis

<400> 1418

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcggaatttg | aatatcagag | gagcacaaag | cagccagcag | tttgctgga | ggagaatgag | 60 |
| ttagctgaca | ttttcgatag | ggttctactt | tgtgctccga | cgggaaataa | gcctgattct | 120 |
| aaatctcctg | gttctagatt | tgaggatgcc | tcaaataatg | gggcaagcca | gaatgtacag | 180 |
| aaaaatcgca | atcacctgca | ctttcagccg | aacagctctg | tgtcaaaaaa | ccaatgagtg | 240 |
| ataagaagga | agtcgtggat | ctgaggaacc | ttctgtgttc | ttgtgcacaa | gcagttgccg | 300 |
| tggaggatcg | taaaaatgct | aatcaatatc | tgaagcagat | taggcagcac | tcct | 354 |

<210> 1419

<211> 540

<212> DNA

<213> Eucalyptus grandis

<400> 1419

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcaatcgga | gttgggctgg | ctgtgatatc | tgtgtccgcg | gccagggccg | ccatgctttt | 60 |
| tgccagcccg | atggcggtgt | aaatcgctga | accgtaagaa | cggcagtaaa | caagtgtcgc | 120 |
| atgagtacgg | ctttttgccg | ctgtgtgtcg | ccatgtgttt | cttcaaattg | cccttcaatg | 180 |
| caaatcgttt | cccgcatgtg | tcacattcga | acgggcgcac | cttcgaactc | gaatgagatg | 240 |
| cgacatgacg | cgttagtgtc | tcctcgaaat | gaaaagactt | tccgcaaagt | ttacacggga | 300 |
| actcgcgcag | cacatcgtag | tgtgtaggaa | catattcgct | tcctgaatca | ttgtccatcg | 360 |
| ctgtagaatc | attttcttct | tcttccgtag | actcgttcga | attgttggtt | tccgttgagg | 420 |
| tcgtcgcaga | ttcaggagat | ccagcaggat | tggagataac | tggctcatcc | acaggcaaca | 480 |
| acgcgatttc | ggcgagattt | tccatcagga | tgggctccac | agtgaccgga | gggccccctg | 540 |

<210> 1420

<211> 349

<212> DNA

<213> Eucalyptus grandis

<400> 1420

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gatgggttca | aacagtctta | tgggcttggt | gggaagagat | catcatcgat | tcggcctccc | 60 |
| gaacaagaga | gaaagaaagg | ggttccttgg | accgaggaag | agcacaagct | ctttttgatg | 120 |
| gggtctaaaa | aatatgggaa | aggtgattgg | agaaacatct | ccaggaactt | cgtgatcacg | 180 |
| agaacaccga | cgcaagtagc | tagccacgca | cagaaatact | tcacagaca | actttcaggt | 240 |
| ggaaaagata | agagaagggc | cagcatccac | gatatcacia | ctgtgaatct | cacagagact | 300 |
| agaactcctt | caccagatga | taaaaggccg | ccttcgccag | atccttcat | | 349 |

<210> 1421

<211> 378

<212> DNA

<213> Eucalyptus grandis

<400> 1421

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|-----|
| ccgaggccga | cttcttgccg | aaacactcca | agcccagagat | cgctcgacatg | ctgcgcaagc | 60 |
| acacgtaccg | cgacgagcta | gagcagagca | agcggagcta | caggggctcc | gccgcggaac | 120 |
| gggcccggag | gggcccgttc | gggcccgggc | ggacagagtg | gtcggccgccc | ggcccgggagc | 180 |
| agctgttcga | gaaggccgtg | acgcccagcg | acgtggggaa | gctgaaccgg | ctgggtgatcc | 240 |
| cgaagcanca | cgcgagagaag | cacttcccgc | tgcggggcgg | gccggcgggcg | acgatgaagg | 300 |
| gcgtactgct | caacttcgag | gacgtcggcg | ggaagggtgtg | gcgggttccgg | tattcgtact | 360 |
| ggaacagcag | ccagagct | | | | | 378 |

<210> 1422

<211> 358

<212> DNA

<213> Eucalyptus grandis

<400> 1422
ctcctctcct ccctcactct ccctcttata tcttccctcc tctcctccgg gtacatgcaa 60
gaattcgagg gggagagagg gagagagcgt gctttgaaca tggggaggag cccgagggtgc 120
gacaaggacg ggctcaacaa aggagcgtgg acggccgagg aggaccagat cctgatggac 180
tacgtcaagc tccacggcga gggcaaattg agccggctct ccagggaac cgggtctaaga 240
agatgcggca agagctgcag gctgcgttgg atgaattacc tgaggcccga catcaagaga 300
gggaacatct cgcccgcga agaagaacta atcatccggc ttcacaagct attgggca 358

<210> 1423
<211> 373
<212> DNA
<213> Eucalyptus grandis

<400> 1423
catcctatga agccggaatc tgttgaagta ctgaatttcg gagatagtgg gagcgggaagg 60
ttgctttcga gtcattcaca ggtcgcagtt gcagaggagc ctctgaacca cgtcgaggcg 120
gagaggcaga ggaggagaa gcttaatcag aggttttacg ccctcagggc cgtgggtcca 180
aatgtatcaa agatggataa ggcttcactg ctccaagatg cggagtctta tatcaggggag 240
cttaacatga acctacaagc tgcagagtct gataaggagg atttgaagaa gcagttggat 300
gaactaaaga agcgatcatc ggataaagaa tgtatcccg tggatcaaga tcgcaagatg 360
gcaaaacctc cg 373

<210> 1424
<211> 425
<212> DNA
<213> Eucalyptus grandis

<400> 1424
gcgaaccgag cggaatccg ctaatgttca tcggaagctt ctcataagag gaggggtccg 60
aggcttcaat tttcgagcag ggctcatgga tcgtcgggtc tacaccaacc ctttcgtgca 120
tgatcaagaa gaagaccccg agcccagca aggccctgat tcgccctcct cgggggaaga 180
ctccaangtg aatgctatcg agccgtcnca aaagagaagg aagagcgtga agaancgagt 240
ggtgtcgggt ccgactcggg gcgaccccga gggatccaag agcaaagggg aggcctaccc 300
gccgtccgat tcgtgggctg ggaggaagta cggccaaaag cccatcaagg gctcgcctta 360
cccgagggga tactaccgat gcagtagctc caagggctgc cccgccagaa agcaagtgga 420
gcgca 425

<210> 1425
<211> 434
<212> DNA
<213> Eucalyptus grandis

<400> 1425
gcactttcag cttcggcatc ctgaaggccg gcgagggagg tgatggtgtc gcggacgacg 60
aactcggggg gacgaggcag ctgttcccgg tgagggaggg ggatgcggat atggagtggg 120
gcggcgagtc gtcctcgctt gataagagga gcgatgtctt cttggttggg gcttgtaagg 180
aaaaggaagg tccgaggctg gcgatgccgc agcagcggag gaagagcagg aggggaccga 240
ggtaacaggg ctcgcagtat agaggggtta ctttttatag gaggactgga agatgggagt 300
cgcacatatg ggactgtgga aaacaagtgt atttgggtgg attcgacact gcacatgctg 360
cagctagacc tatgatcgag ctcaataaaa ttcaggggct tgatgcaaca taaatttcaa 420
tttgagtgat tatg 434

<210> 1426
<211> 414
<212> DNA
<213> Eucalyptus grandis

<400> 1426
gccagtatga actctccttt agcccagctt gttaacccaa gaaggatgca cacctacgag 60
ccatttgacc agttcccat gtggggagag accttcaaag ctgacaaggt taaaaatctt 120
gaggcatcgt catctgtgat tgtgcatgca gtagatgatg gattggacaa gaagtttgaa 180
tatgtttctc atgaatcggc agaaaattcc agctccagga gcgatcaaga agcaaataga 240
cctgacaagg tacagagacg tctagcacag aaccgtgaag ctgctcgaaa aagccgtctg 300
cggaagaaga aatatgtaca acaactagaa tcaagccgct tgaagctagc acagttggag 360
ctggaactcg ggagagctag gcagcaaggg ttgctcttgg gaaatggatt cgac 414

<210> 1427
<211> 332
<212> DNA
<213> *Eucalyptus grandis*

<400> 1427
aaaagcccta gctaaatcaa ttaacaagcg ctaatcctaa aagcacaggc gaagatttca 60
ctgttctgga gagagcttga tcttcagggg cgtcgagaag cgcggttct tcgaggggtg 120
ggggctctcc acctcgtcgt cgcccgacac gatgaacccg gtcgggaact ccggcagcgc 180
gggcacgttc aggtcgaagt tgccggcgcc gctgtcgtat ccgagcgcgg gcggggccgc 240
ggacccacg cctcggacg tggtagcccc gctgttggcg gagccgctgg cgccgccatc 300
gtagtggcaa cgcttgtgcc cgccagggc ct 332

<210> 1428
<211> 318
<212> DNA
<213> *Eucalyptus grandis*

<400> 1428
gatccacca actggccaca gcagcaagca aatcaacaat caggagcaag cagtgaagatt 60
cctcagcttc cgtgcccgc gccccctctg ccagccggag ggggcggtac aggctccatc 120
cggccaggtt ccattggccga tcgggctcgg ctggccaagg ttccgcagcc cgagcctgga 180
cttaagtgcc cccgatgcga ctcgacaaac accaagtctt gctacttcaa caactacagc 240
ctcacgcaac cgcgccactt ctgcaagagt tgccgcccgt actggaccgc aggaggtgag 300
tgaggaacgt gccagtcg 318

<210> 1429
<211> 349
<212> DNA
<213> *Eucalyptus grandis*

<400> 1429
gaaagcctaa agaaagcaga tacaacagga aaaggaggac accaatacag atggttttac 60
agaaagattc acaagaacta aaccgtcgtc gatcttaggc acgagtcaag ctgcttgagt 120
ggcgccatcc ttgcagttgt cgagatccga ttcattgact gaagaaggcg ctttgataaa 180
tgctgactgt cgagatgttt ccccgagaaa cttcaaagag agtgggtgag gttcattctc 240
agcaagactt agctgagaca ttccaactat ttggtcgata tttaggggtt cttttggaat 300
tactgggatt ggcttttagca cacgggtgat agatgtctcc accaccctt 349

<210> 1430
<211> 350
<212> DNA
<213> *Eucalyptus grandis*

<400> 1430
aacgcccgtt ctccacaaca agcgactctc tctctttctc tctctcctcc aactaaaatc 60
ccaagcctcc caagtctctc cgaccatggc tccccgggag aggcccaacg ccgtcaccgt 120

<211> 557
 <212> DNA
 <213> Eucalyptus grandis

<400> 1435
 ggtcgttcga caacaccctg tcgctgctga gccgcgccga gcccgcacgag gtgtcgcagg 60
 tgccgggtcag gccctgcgcc gtcaagtccg aggactccga ggagagcagc aagacctcgg 120
 tccccagaga ccgccgtgga tgctacaaga gaagaaagac ttcggatata cagataagga 180
 tggatcataa tttgattgac gacgggcacc agtggaggaa atatggccag aaagcgattc 240
 ttaactcgga gttcccaagg aactacttca ggtgtactca caagatcgac caaggttgtc 300
 tagcgaccaaa acagggtccaa aaggtacagg acgctccgcc cctctatagg accatatacc 360
 agggccaaca cacctgcaag aacctcatcc tgaaatcccc ctccctcatc ctggactcgc 420
 ccgagccctg gggactcttc catcctcgtc agcttcaaca ccagcctccc tccaagcaa 480
 gacgacaaca acaacagcag cagcaacccc ttctcctctt cgactttccc gtcggtgaag 540
 cacgagcccc aagctgc 557

<210> 1436
 <211> 438
 <212> DNA
 <213> Eucalyptus grandis

<400> 1436
 aatcaacacc nctccccaat ttctctctnt aagatccac cccaaccgcc accctcaatc 60
 tctctctttc tctctcttct tcagtgtctg ccccgctctg gacaagggct tcccctccta 120
 ccaggccctg ggcggccaca aggccagcca ccgcaagcac gcctcctccg ccgcggccgc 180
 cgccgggggt gacgaccagc cgaccacctc gagcacctcc gcggcgacga cctcctccgg 240
 cgtctccggg aaggtccacg agtgctcgat ctgccacaag agcttcccca ccggccaggc 300
 gctcggcggg cacaagcggg gccactacga ggccccgcc cccatccccg cctccttctc 360
 cgccccctcc gccgcgcgcg ccccggcgcg cagcgggggt agcgtgtcgg agggcgtggg 420
 gtccacgcac acgcagag 438

<210> 1437
 <211> 327
 <212> DNA
 <213> Eucalyptus grandis

<400> 1437
 tctctctctc ttcggtttct ccgttttctt ctctctacct ctgcaccaaga aaccgccagg 60
 aaaggaagga aggtaaaaag aaaagaaaag gaagccatgg ctccgagaga aaagcccagc 120
 gtcgccgcca tcccaaacc taacggcgct aaggaaatcc gtttccgggg cgtccggaag 180
 aggccctggg gccgctacgc cgccgagatc cgggaccccc gcaagaagac ccgggtgtgg 240
 ctccggcacct tcgacacagc cgaggaggcc gccgcgccta cgacaccgcc gccgcgaggt 300
 tccgcggcgc caaggccaag accaact 327

<210> 1438
 <211> 360
 <212> DNA
 <213> Eucalyptus grandis

<400> 1438
 gcgagagcta accgcaaaaa ttaccagct ctcatctttc ccacttcaac aaaaataaccg 60
 gaccgaaaga atgtgtatata atatgtctat ttgatagcat aagaacgggt acataccgtg 120
 tcaaggacct ccatgaacaa ggatgaaaaa ctggctaatt cctggaaaac tcctggcaga 180
 cccgtttgaa gattgttcaa ggtacttgtc ctcgctactt ccactgcctt ggaatgtttc 240
 agcattttctt cttctaccct cctttggcag gttgcaagtt caagtttctt ctccggccagt 300
 ggggtcccag catccagcac ctggccattg tcggggccag gatcaggga ccctacacca 360

<210> 1439
 <211> 269
 <212> DNA
 <213> Eucalyptus grandis

<400> 1439
 ccgaaacgga atcgttcttg gggtttgaag cgaagccggt aattatcggt gaaacggcct 60
 cgaaaacctc gcaatcaagc aagaagccat cgctgaagat cgcggtgccg agaaaagtcg 120
 agctgctgca attctccaag gcgaatccga tggttcaagg aggttcgaat caagcacgcg 180
 acgagcagag gcactataga ggagtcgccc ggaggccttg ggggaagttc gcggcggaaa 240
 tccgagaccc caaccggaag ggctcgcgc 269

<210> 1440
 <211> 351
 <212> DNA
 <213> Eucalyptus grandis

<400> 1440
 aagaagacga agcagctcat ccgaccatgg tgttggtatt gcgaacgaga atttgaagat 60
 gaaaaagttc tcatgcaaca ccaaaaggca aaacatttca aatgtggaat gtgtcctcgt 120
 cgtttgaata ctgctgggtg tttggctggt catattcagc aagtgcacaa actcgaaccg 180
 gaaaaccttc cacgtataga aaatgcacta ccaggaagag atggctacga agttgaaatc 240
 tttggtatgg tgggaatccc agcacctgat gtcgccgact acaaacgacg caaggaaatc 300
 gaactgggac tggcagcagg atccatttca cagcctcctg ccaagcgtca g 351

<210> 1441
 <211> 476
 <212> DNA
 <213> Eucalyptus grandis

<400> 1441
 gatagtccaa gctctctgcc tctctctctn tctgtattct ctatcttcat ctgcggcgctc 60
 ttgatcgctc tcatctcgct ctcgcgaatg ttgtctctcg tcttctcctc tgtccgccat 120
 tcaaagatca cctattcttt ccgtttggtt tgcggtgact aagaactctt tctctctctc 180
 gctctgagtc actcttgctt tctcccgact tttctgggat tgatgaaaat ggcggaaga 240
 tcgaacttgt cggaccgga aacaagcccc ttgaactcac cctccacctc ctccgcttct 300
 tctctgtact caccgaccc gcgcgcgccc gccggctcgc ccgcgcggt ccgcgaccg 360
 ttgagatcct ccaagcggag caagcaccg gtgtaccgcg gggtcggat gaggaactgg 420
 ggcaagtggg tgtcggagat ccgggagccc cgcaagaagt cccgcatctg gctcgg 476

<210> 1442
 <211> 315
 <212> DNA
 <213> Eucalyptus grandis

<400> 1442
 gcaagnactt tgaacctggg aatcatgtna aggtcgtttc tggtncccaa gaaggtgcta 60
 ctgggtatgg tgtaaagggt gagcaacatg cgctgatcat tttgtcagat acaacgaagg 120
 aactattacc gtttttgcag atgatgttgt tgagagttca gaggtaacat ntggaataac 180
 cagaattgga gactatgagc ttcacgacct tgtgctgctg gataatacca acttcgggtg 240
 cataattcgt gttgaaagtg aagcttttca ggtaggtgac atgcactgag gcaagtctct 300
 tggacatgcc cttca 315

<210> 1443
 <211> 338
 <212> DNA
 <213> Eucalyptus grandis

<400> 1443
 ctcagccgag cttcagaggg aaaccgccat gccctcgca aagtcactct gccacactta 60
 tcgggaacga taagatgggtc atttttgggg gtagtggcca aggcgaagcg aactattgaa 120
 cgacctgcat attctggacc tagagacgat gaggtggatg tctcctgagg taaaaggcga 180
 gattcctgtc cctagggaca gtcacagcgc tgttgccatg gaaaacaaat tagtgggtgta 240
 tgggtggagat tgtggcaatc ggtatcttgg cgatgttgat gtacttgata cggacacaat 300
 gacctgggtca aagttgactg ttcaaggatt ttcacccg 338

<210> 1444
 <211> 409
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1444
 gccaaggcca caaccatcaa caccaccacc agtttgccg tgatcattct tctccctctt 60
 cggtcgccat ggctgggtgcg gcaggggggt tagagagnga gaacggcgga aatgggagat 120
 ggcctatgca ggagactctc acgctcctcg agatcaggctc cgaggctcga ctctagggttt 180
 aaggaggcca accaaaaggg tcctcttttg gacgaacttc cggattatgt cggaagaaca 240
 tgggtatcaa cggagcggca agaaatgcag ggaaaaattc gagaacttgt acaagtatta 300
 caagaagacg aatgaacgaa aagcgggtag gcaagacggt tagcactaca gggtctttcg 360
 tcaagctcga agctctctac ggagagaacg ccaatttgaa ttccatcct 409

<210> 1445
 <211> 304
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1445
 gaactgttgt acatggatgg acaggctgac atcaagcagc gccaatcctc cattaatgcc 60
 ttcaatgacc caacgagtga agtgaggggt ttgcttgctt ctaccaaagc atgttccgaa 120
 gggattagtc tgggtgggtgc ttcaagggtc gtgttactag atgttggtgtg gaatccgtca 180
 gttgacaggt aggcataaag ccgtgctaca gacttgagca gaagaatgcg gtctatatatt 240
 atcatctgat cacttctggg acaatggatg ctgagaaata ctgtcaacgg gtgtaaaagg 300
 acac 304

<210> 1446
 <211> 332
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1446
 ggctccccgg gagaggccca acgccgtcac cgtcgccgtc agccccaggc cccagggcgg 60
 cgccaaggag atccgcttcc gcggcgctcag gaagcggcgg tggggccgct acgccgccga 120
 gatccgcgac ccaggcaaga agaccgcgt ctggctcggc accttcgaca ccgccgagga 180
 ggccgcccgc gcttacgaca cggcggcgcg tgagtccgcg ggcgccaagg ccaagaccaa 240
 cttccccacc gccgacgagc tcgtcgctcg cgtcgccgcc gccgcccga gccccagcca 300
 gaggcagcacc gtcgacaacg cctccccctc gc 332

<210> 1447
 <211> 349
 <212> DNA
 <213> *Eucalyptus grandis*

<400> 1447
 gtaaaacaac ctccctcagc tcctcttcac cactgggttt tgagatgatc tgtgtgctcg 60
 gcgccgttga ttattatgtc ttattctgac ttgctgaacc tgctgtttgc cgtgggcgtt 120

| | | | | | | |
|------------|--------------|-------------|------------|------------|------------|-----|
| tggtgcaccg | cgtatatattgc | ggctgcccgtt | ctcgagtcgc | tccgggtctt | ccatactctc | 180 |
| tgttcgtttt | gatttcgata | gctgttttcg | aaggctaaga | tgggctacgc | acagctggtc | 240 |
| atcgccctg | ccggcagtg | caagtcgact | tattgctcga | gtttgtatca | acattgtgaa | 300 |
| gctattgggc | ggacaatata | cattgttaac | ctagatcctg | cagcagaga | | 349 |

<210> 1448
 <211> 362
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1448 | | | | | | |
| ccgcaacgag | gcgataccat | ctccggcccc | cgtcttgctc | tccctctctc | aatcccatcc | 60 |
| atccctccat | ccatccatcc | atccgccccg | accctccctt | tctctctcca | tctctctcgc | 120 |
| gcagcatgat | tccgagccga | gccgcccgcg | cgcccgcgca | cgtcccggaa | gtcgcgggat | 180 |
| cggcaccgaa | ggggcacgta | caacagcagc | agcagccgca | gcaacaggtc | ggcgcgggca | 240 |
| gcccagtagc | aggggcgtgc | ggaggcggcg | gtggggcaag | tacaccgccg | agatcagcga | 300 |
| ccccgtcaag | aaggcacgcg | tctggctcgg | caccttcgcc | tccgccgagg | agggcgccgc | 360 |
| gc | | | | | | 362 |

<210> 1449
 <211> 281
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1449 | | | | | | |
| cagcagacca | gaccattcca | ttccattcca | tttcgcattc | tctactacag | actcgcagag | 60 |
| atggtgaaga | gagacagaga | ggcgcgagg | tcgaagccct | ggccgngggc | aactgcttga | 120 |
| tgctcctccc | ccgagtcggc | gagtgccgcg | actcgaaccg | cgaatcgccg | tctacagagc | 180 |
| ggatgttcgc | gtgcaaagac | gtgcaaccgc | gagttcttct | cattccaggc | gctcggaggg | 240 |
| catagaacca | gccacaagaa | gcagaagctg | atccccggcg | g | | 281 |

<210> 1450
 <211> 389
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1450 | | | | | | |
| aagaagacga | agcagctcat | ccgaccatgg | tggttggtatt | gcgaacgaga | atttgaagat | 60 |
| gaaaaagttc | tcatgcaaca | ccaaaggcaa | aacatttcaa | atgtggaatg | tgctctcgtc | 120 |
| gtttgaatac | tgctgggtgt | ttggctgttc | atattcagca | agtgcacaaa | ctcgaaccgg | 180 |
| aaaaccttcc | acgtatagaa | aatgcactac | caggaagaga | tggctacgaa | gttgaaatct | 240 |
| ttggtatggt | gggaatccca | gcacctgatg | tcgccgacta | caaacgacgc | aaggaaatcg | 300 |
| aactgggact | ggcagcagga | tccatttcac | agcctcctgc | caagcgtcag | aaaatggatc | 360 |
| accggccgat | atctcagagc | gaattgaag | | | | 389 |

<210> 1451
 <211> 381
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1451 | | | | | | |
| gctgcgctgc | cccttccctt | ttgaccgttg | ctcctcccc | ttctctctct | accaacgtct | 60 |
| ctctctctct | ctctctatct | gcactgtgat | tccctcacct | tctcgcagcc | tcgccatctt | 120 |
| ccctcctccc | aactcctcgc | tccttcgctc | gctcgtctca | gtccagatat | ttcgcgatca | 180 |
| atctcgaaca | gcttacggag | atccttatgt | atctgggtgat | aagcataaga | gaacaccctt | 240 |
| gtgaattccg | tttcgatttg | catttttaaa | gttcatagt | tgaagagagt | tggaaatctg | 300 |
| aggtgcaaga | tggggtgttc | ctcatcaaag | cttgacgatg | aagaggcggt | caagctatgt | 360 |

aaggatcgga agcgattcat t

381

<210> 1452

<211> 381

<212> DNA

<213> Eucalyptus grandis

<400> 1452

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|-----|
| ggcgagctct | cttatcttct | tcttctctct | gctccaccta | aaaccctcgc | ccggcaaaac | 60 |
| cgattcgagg | tcgagagtcg | agtaaagatg | aatgtggaga | agcttatgaa | gatggcgggg | 120 |
| tcagtccgca | ctgggtggaa | gggtaccatg | agaagaaaga | agaaggctgt | gcacaagaca | 180 |
| actaccacgg | atgacaaaag | gctccaaagc | actctcaaaa | gaattggggg | taatgctatt | 240 |
| cctgcaattg | aggaagtcaa | catttttcaag | gatgatgttg | tcattccaatt | tgtaaattccc | 300 |
| aaagttcaag | cctctattgc | agccaataca | tgggttgctca | gtggtgctcc | tcagaccaag | 360 |
| aaattgcaag | atatctctcc | a | | | | 381 |

<210> 1453

<211> 378

<212> DNA

<213> Eucalyptus grandis

<400> 1453

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tttttttttt | ttttttacgc | aatggaagaa | caaactgttt | tccaactgaa | agtacaaata | 60 |
| actcctaata | tagaattagg | taaatgctta | aatcctgcta | cctacaaatg | tgaaccacga | 120 |
| tgacaagggt | cccaacacca | aatgtttggg | acgatgtgaa | aacttgacga | cctgacagca | 180 |
| attagcatat | accaacctaa | cgaaactacg | agggggagag | agcttatggg | cacggcacca | 240 |
| gctatatcaa | gtacgcactc | tcttattgct | gcaggaggga | cacttgact | gcttgatgtg | 300 |
| ctcagccctg | gcgggagtaa | ttttcacgca | tttcccatgg | aaccacttct | cgcacatgtc | 360 |
| acaacagatc | cagaactc | | | | | 378 |

<210> 1454

<211> 339

<212> DNA

<213> Eucalyptus grandis

<400> 1454

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| atgctgctgc | cacgaacagc | cgcttttaca | tctttttaca | tccaagggcc | agtccatcgg | 60 |
| agtttgatcat | acctctggca | aaatatgtga | aagcagtcta | tcacacaagg | gtatctgttg | 120 |
| gcatgcgatt | cagaatgctt | tttgagacag | aagagtcaag | cgttcgtaga | tacatgggga | 180 |
| cgataacagg | cattagtgat | ctggatcctg | ttcgctggca | aaactcacat | tggcggttcag | 240 |
| taaagggttg | atgggatgag | tcaactgcag | gtgagaggca | gccaagagta | tccttggtggg | 300 |
| aaattgagcc | actaacaaca | ttcccaatgt | atccttctc | | | 339 |

<210> 1455

<211> 372

<212> DNA

<213> Eucalyptus grandis

<400> 1455

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|------------|-----|
| gtcgggtgtta | ggagattaat | gagacagcaa | agtaacatgc | cattctctgt | tatatctagt | 60 |
| cacagcatgc | atcttggggg | tctggccact | gcattctcatg | ccattgcaac | tggaactctc | 120 |
| ttttctgtat | tctacaaacc | aagaacaagt | aggctcagagt | tcattgtgag | tctcaataaa | 180 |
| taccttgaag | cacgggcccc | caagctatcc | attggaatga | ggttttaaata | gaaatttgag | 240 |
| gggtgaagaag | tttcagaaaag | aagggttcagc | ggcacaatca | ttggtgtagg | agacagcatg | 300 |
| tcattctggat | ggactaatcc | tgaatggaga | tccttaaagg | tccaatggga | cgaaccttca | 360 |
| tcaatcattt | gg | | | | | 372 |

<210> 1456
 <211> 436
 <212> DNA
 <213> Eucalyptus grandis

<400> 1456
 gcaacgtagt gtttccatag caactcaaac aacaaaggaa cttgttttaa aggattatgc 60
 tctggagtca gatgagacaa gaatatacaa agcagcgga aaaatgggtg ccagccttgc 120
 tggaagtcta gctcatgtga catgcaagga acctttgcgt gcttcaatat caaatcagct 180
 aaaaaattcg cttcagggct tgaatctatc tgctgaactt ctagaccagg ctgttcaact 240
 ggctaccaat gataatcttg accttggctg tgcaagtcatt gaacgggctg cagctgataa 300
 ggcaattcaa accatcgatg gtgaaatata tcaacaactt aacctaaaga aacataggga 360
 ggggtgttgc ccagcatttt ttgaagccac tgtatttggc caagggtcaa tgggcattct 420
 cccagaggct cttcgc 436

<210> 1457
 <211> 352
 <212> DNA
 <213> Eucalyptus grandis

<400> 1457
 gcgcggcgga ccggggggga gctggaaatg aagtgcccg actgctcggc gtcgtcgcag 60
 gggcggtgcg ccaccggcgg cgggcgccgc tcgatcacgc agtgacaccc ctgcggccgc 120
 gtcgtggagg agcgccacca cttccccctc ccccccccc aagccctagc cctcgccgac 180
 gccgacgccc accccttcga gtccaccggc ttcacacgc ccttctccac ctgggtccctc 240
 gagcactccc cgctctccct ccgctcctgc ctctccttct ccggccacct cgccgagctc 300
 gagcggaccc tcgagtccac caacccctcc tctcctcct cctcctcgtc ga 352

<210> 1458
 <211> 364
 <212> DNA
 <213> Eucalyptus grandis

<400> 1458
 gagaaattta agatcccggg ggagttcaac ggtttgccgg agtttgcccc anatgttact 60
 cgtgacatgc ttgatgtcag gccgggggaa gctctcgcag tgaacttccc actccagcta 120
 caccacacgc cagacgagag tgttgacatc accaatccaa gggatgggct actaaggatg 180
 gtgaaatcgc tttctccgaa agtgatcaca ttgatcgagc aggagtcgaa cacgaacact 240
 acaccgttcc tgacaagggt tgtggagacc ctgcactact acttggcaat gtttgagtcc 300
 attgacgtga ccctgcccag agacaggaag gagaggataa acgtggagca gcactgtttg 360
 gcaa 364

<210> 1459
 <211> 224
 <212> DNA
 <213> Eucalyptus grandis

<400> 1459
 ctccagaagta cttcatcagg caatctaacg tgtcaaagag aaaacgacgt tccagtctgt 60
 ttgatattgt ggcagaggaa tcgggttgatg tgccaatggg atcaagggac ttctttgcgg 120
 tcgacgagca acagcaggaa acagaagtaa atgatgcctt gcagcagctg ccacctgatg 180
 ttgatgaaga atgtgaatct atggactcca ccaactcaaa tact 224

<210> 1460
 <211> 363
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| atcaaagaaa | atgagaaggt | aatgagagag | agtggacaat | gggagcagca | aaccccagca | 180 |
| ccgaccacat | cctccttcat | gctacaaccc | actttgcctc | ttccttccct | caccattggc | 240 |
| aacacgttcc | agacaccgca | tgtacttgga | ggagcagaac | aagaggagag | atctcaagcc | 300 |
| cgaccagcca | acacgctcat | gccgccttgg | atgatacgcc | gttcaaata | atagagagat | 360 |
| agagaccaac | aacattctc | | | | | 379 |

<210> 1465
 <211> 334
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1465 | | | | | | |
| catcacacag | gttgatttga | gaactgaaat | caagatcgct | gtcgtcgtcg | tcgttctcgt | 60 |
| cggtgctgct | cggccgcatt | tgactcggcg | taacgaacga | agccggttgc | gatctagggg | 120 |
| tggtgggggg | cgcggaggaa | gctcagacct | cggtcgtttg | ttttcttttt | cttttttgcc | 180 |
| gatcatggaa | ggcgtcggcg | tcgatcacct | ggccgatgag | cggcagaagg | cgcggttcga | 240 |
| cgtggaggag | atgaaggctg | tctggggcgg | ctctagccac | gccgtcaggg | tctccgatcg | 300 |
| catggccgcg | tcgtcgccag | cgatccggcc | tttc | | | 334 |

<210> 1466
 <211> 371
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1466 | | | | | | |
| tctctctctt | cgaaaaccct | ttctctctct | ctctctctcc | tctgtgattg | cagatcaggc | 60 |
| tctcgcgcca | ctccattcgc | gcatctccga | cctcctctct | ccacgcggcc | actgtcccgt | 120 |
| cgcgcgcaatt | cgccccgccg | tcgtaggaga | ccgcatectc | cgcgcgcccg | gcgatggcgg | 180 |
| cgctggcccc | agctccattc | cctacgctag | caacgcattt | ctttggaagt | caggccaggg | 240 |
| gaaggaaatca | attactccct | cgttactggc | ccaggataac | agatcaagag | ctacaacaga | 300 |
| tccttgagaga | ctcaaactct | gtaatcactc | cgctgtttga | gaaaatgttg | agtgctagtg | 360 |
| atgcaggtaa | a | | | | | 371 |

<210> 1467
 <211> 456
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1467 | | | | | | |
| ggttgcccag | ttgtgtggag | tgccatttga | gttccacgct | gccgccatgt | gtggaagtca | 60 |
| ggttgaacga | gaggacctca | gagtgcgacc | tggcgaagct | atagccgtga | attttccctt | 120 |
| tgttttgcat | cacatgccag | atgaaagcgt | cagtaccgat | aatcaccgcg | atcggtgct | 180 |
| gcgattgggt | aagagtctat | ccccaaaggt | ggtcaccctc | gtggagcaag | agtctaaaac | 240 |
| caacacgtcc | ccattctata | caaggttcat | agagactttg | gactattata | ccgcaatggt | 300 |
| tgagtcaatt | gatgtagcgt | gccgacggga | tgacaagcaa | aggatcagtg | cggagcagca | 360 |
| ttgtgtcgcc | agggacatag | tcaacatgat | agcttgtag | gagacggaaa | gggttgaaag | 420 |
| gcatgaactt | ttggggaaat | ggaggtcaag | gttttag | | | 456 |

<210> 1468
 <211> 417
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-----|
| <400> 1468 | | | | | | |
| ggaacatcaa | tcgaatccat | ggcatcagag | ctcctcagcc | gctaatacaca | ggcagctcaa | 60 |
| cctagagctc | gcacttgagc | catgttcacc | atcctcgtea | tcataccag | catcactcca | 120 |
| tcctcttgca | gttccctgcaa | aagacaacaa | gctttactca | tgcaacttct | gccaaaagaa | 180 |

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gttctatagc | tcgcaagcac | ttgggggtca | ccagaatgct | cacaagctcg | agcgaaccct | 240 |
| agcgaagaag | agcagggact | tgtgctctgc | cgcaaaacct | cctgcggcga | cctcgaatgg | 300 |
| tcaccatgta | cggccatctt | ttcaatctgt | ggtttatgag | aatcagccac | gcttggccag | 360 |
| gcatgttggg | gatgatatga | ggatatgctgg | gactaatccg | ctgtatgggt | catcttg | 417 |

<210> 1469

<211> 460

<212> DNA

<213> Eucalyptus grandis

<400> 1469

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-----|
| aggatcgaga | acaagataaa | cgggcaagtg | acgttcgcga | agcgggaagaa | cggtctgctc | 60 |
| aagaaggcgt | acgagctctc | ggtgctctgc | gacgccgagg | tcgcgctcat | catcttctcc | 120 |
| agccgcggca | agctccatga | attctgtagc | ggcccaaggt | atcgcgattt | tgtatgttat | 180 |
| cacttgtttt | tctcgtaa | ggtatgatga | gacatcaggg | ggagaaacc | agaactgaga | 240 |
| tcacactggt | tcattaaatt | ctctcgcca | aattctttcg | ggaaaccctc | agatcttggg | 300 |
| gatctggatc | ttgggtgctgc | cctaaggaga | tggcgattta | ttgggttttc | ttcttttttg | 360 |
| ggtttcagtt | tcttgactct | ttttgcgac | tttccgttca | ccatgaaaaa | aagctttcag | 420 |
| ccgcacagtt | tcttgcttcc | tggggtttct | gatcttctct | | | 460 |

<210> 1470

<211> 408

<212> DNA

<213> Eucalyptus grandis

<400> 1470

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gaggaagccg | tcgccgtcga | gccgagtcag | gaggtcttcg | atcgcttctt | cgccggcttg | 60 |
| ctcgttgatt | cccccgagg | cggaccggcc | gaggcgaccg | acggcgcgag | cgacaaggag | 120 |
| tccaattcat | ccgacggcgg | cggcgccggc | ggcgccgaac | gggatgagaa | gctggctcgc | 180 |
| ggagataacg | agctttccga | ggacgctgat | gatgatgatc | ccgtctctaa | gaaacagaga | 240 |
| aggcagctca | ggaataagga | tgcggcggct | aggtcgagg | agaggaagag | aagttacgtg | 300 |
| aaagagctgg | agatgaagag | caaatatatg | gaaggggaat | gccgcaggct | ggggcggttg | 360 |
| ctccagtgct | ttgtggctga | gaatcaactc | tgcgtctgaa | tttgagaga | | 408 |

<210> 1471

<211> 530

<212> DNA

<213> Eucalyptus grandis

<400> 1471

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gcagaatctg | tagtatatat | gacgatgaaa | gggaaatcta | tcactgcctt | tactgtaact | 60 |
| tgtgtcgtgt | gggaaagggg | ttgggcattg | actattttcca | ttgcatgaac | tgcaatgcct | 120 |
| gcatgtcgcg | ctccctttca | gttcacaaat | gcagacagaa | atgcttagaa | gataactgtc | 180 |
| ctatttgccg | tgagtacatt | tttacatcga | actctccagt | aaaggccctc | ccctgtggcc | 240 |
| acttgatgca | ctcggcatgt | ttccaggagt | atacttgtag | tcactatact | tgtccgattt | 300 |
| gtagcaagtc | actaggggac | atgcagggtt | attttaaaat | gttgataca | cttttgccg | 360 |
| aagagcaaat | gccagatgag | tattctggca | agaccaggt | tattctctgc | aatgactgcg | 420 |
| agaagagagg | aagcacatct | tttcattggg | tttatcacia | gtgccgtcat | tgcggttcat | 480 |
| ataacacgag | gctgctttga | ttccaacctc | agacgcatat | atataactct | | 530 |

<210> 1472

<211> 381

<212> DNA

<213> Eucalyptus grandis

<400> 1472

| | | | | | | |
|-----------|------------|------------|------------|------------|------------|----|
| ttgccgcca | actgaagcac | agctgcgagc | tactgggtga | gaaggacggc | gcgggcagct | 60 |
|-----------|------------|------------|------------|------------|------------|----|

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| ccggtataac | caagggcgag | acaccacggc | tcaagttgct | cgaccagagc | ctgaggcagc | 120 |
| agagggcctt | ccaccagatg | ggcatgatgg | agcaagaggg | ctggaggccg | cagcggggcc | 180 |
| tgccggagcg | gtcgggtcaac | atactgcgtg | catggctctt | cgagcatttc | ttgcatccgt | 240 |
| atccaagtga | cgctgataag | catctgttgg | ctcgacagac | tggtctctcc | agaaaccagg | 300 |
| tctcgaattg | gttcataaat | gccagggtcc | ggttgtggaa | acccatggtg | gaggagatgt | 360 |
| accagcaaga | gtccaaagaa | g | | | | 381 |

<210> 1473
 <211> 567
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1473 | | | | | | |
| cacggcaaca | aatggaagac | aagacgctgt | tcttcctcac | tgagggatcc | cttctttata | 60 |
| cctggtttca | ggtagtctct | ccacctctct | aagcaggact | tggcatcacg | gttaagggga | 120 |
| gtgttcattg | gctgagacac | aagggtccac | tcccttgggc | catactgttt | cacatatgca | 180 |
| cgtaacaagg | cgtcctcttc | agctctccaa | cgctgtcttt | ccttcattgc | caggtgtaga | 240 |
| caccacttcc | cattgcctca | aacttagatc | tttcatagt | tggctacaga | agaagatggt | 300 |
| gataatacaa | attagaagta | atttctcaca | tcacaatata | atacacgaca | ttttagctga | 360 |
| gttaactggg | ctgagaaaag | aaaagaatcc | caaggaggag | acagggttat | ccaaggaaat | 420 |
| gcccggcttn | catggcttct | gcgggtccata | cgggatggcc | atcgacggtg | gtcatagcgg | 480 |
| aaatgctaac | agtttcatgg | agaattgcca | gagattgaac | atgctcgttc | catacatgca | 540 |
| gggccatgat | caggagcaga | tcaacgc | | | | 567 |

<210> 1474
 <211> 423
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| <400> 1474 | | | | | | |
| tcccgcctca | ttcacagatc | agcggcactt | cttgccgcaga | caattgcaga | ctctctctct | 60 |
| cattcaggcg | cctgtctctt | caagaatttt | gtcaaagaaa | ctcctttggt | ttttctctct | 120 |
| ctctctctct | ctctcgacca | tggcccgacc | gcagcagcga | tatcgcgggc | tgccgacagag | 180 |
| gcattggggc | tcctgggtct | ccgaaattcg | ccaccgctta | ttgaaaacaa | gaatttggct | 240 |
| agggacgttt | gaaacggccg | aggatgcggc | tcgagcctat | gacgaggcgg | caaggctaata | 300 |
| gtgcccggcg | agggctcgga | ccaacttccc | ttacaaccca | aacatgtctc | agtcttcttc | 360 |
| gtcgaagctc | ctctcggcga | cattgacagc | aaagctccac | aggtgctaca | tggcctcggt | 420 |
| gca | | | | | | 423 |

<210> 1475
 <211> 402
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1475 | | | | | | |
| ccaatcttca | ctccccctat | cccctctctc | tctctctcaa | gaactaagag | cttactatgg | 60 |
| aaagcgaacg | ctacgatgag | acgacagaga | agcagcgaat | caggagaagg | ccgcaccaga | 120 |
| agccgtacag | gggtatccgg | atgaggaagt | ggggtaagt | ggtggctgag | atcaggagagc | 180 |
| ccaacaagcg | ctcccgtatc | tggctcggct | cctacgccac | cgccgtggct | gccgcccgcn | 240 |
| cctacgacac | cgctgtgttc | tacctcgtg | gcccctctgc | ccgctcaac | ttccccgacc | 300 |
| tcattcttga | cgaggggccg | gactcgctgg | gtgaggtctc | agccgcctcc | atccgcaggc | 360 |
| gtgcagctga | ggtcggggcc | caagtttgat | gcttgtccaa | gc | | 402 |

<210> 1476
 <211> 269
 <212> DNA
 <213> Eucalyptus grandis

<400> 1476
gaggagatgg cgagggggaa gatccagatc aagctgatag agaacacgac gaaccggcag 60
gtgacctact cgaagcgacg gaacgggctn ttcaagaagg cgaacgagct caccgtcctn 120
tgcgacgcca aggtctccat catcatgatc tccagcaccg gcaagctcca cgagtacatc 180
aagctcctcc acctcaacga agaagatgta cgatcagtat cagcaggcgc tcgagggtga 240
tctctggagc tctcactatg agaagatgc 269

<210> 1477
<211> 297
<212> DNA
<213> Eucalyptus grandis

<400> 1477
ggcaaccagt gtgagatgct cctgctgtca cactgtcaac cttgcaccag ttacacctgc 60
ttccaatcaa tatgctcatg taaattgcgg aaactgtcgg acgatgctga tgtatccatc 120
tggagctcca tctgtgaagt gtgcgatctg tcaatttatt actaacgttg gtgcgggcaa 180
tccaaggggt tctgttccac cacaagaat cgatggacca ccgtcaggga caacaccgtc 240
tacttcaacg tcaatgcccc aatctactca aactgtagtg gttgaaaacc ccatgtc 297

<210> 1478
<211> 408
<212> DNA
<213> Eucalyptus grandis

<400> 1478
ggctgtctct acaacttcaa atgcaattat tggcctcaga gacagtagac ttgtcccgca 60
gcttggttgaa ctctgccatg gggttcatgta catgtggagg tcaatgaatg aataccatga 120
gattcagaac aacattgtgc agcaagtccg gggccttggtg aaccgagcaa acaagggtga 180
atctacttct gaattgcacg ggcaggcaac tcgtgacctc gaatcagctg tttcttcatg 240
gcattccagt ttctgccgct taattaagtt ccagtgtgat ttcattccgtt cccttcacgg 300
ctgggttcaa ctgactctcc ttcctgttga caatgataac aatgggaccc aggaacactc 360
tgatgcctat gccttctgcg atgagtggaa gcttgacta aacatgtc 408

<210> 1479
<211> 317
<212> DNA
<213> Eucalyptus grandis

<400> 1479
attatatcgt cgtgtctatt tcccgaata tttgcataac tactagctgg gtctgtcgtg 60
aagccttaca ataaatctac tattagctga gtattgggtg tcgaataatt tgcacgaagc 120
cacgaactat tggcaatcga tctcatggct tcctcgagcg gaacgtcttc cgggtcaacc 180
ttgatccaga actcgggacg agaggagagt ctgcaggcct tgatggatca gaggaagagg 240
aagaggatga tctccaaccg cgagtcggcg aggcggctcg ggatgaggaa gcagaggcac 300
ctggacgatc tgatgct 317

<210> 1480
<211> 411
<212> DNA
<213> Eucalyptus grandis

<400> 1480
tgtcattcca ttgaacactt tgccatggaa gtgcaagaag atgatgacca ggtttcacca 60
gaaacgggtga accccaaaac accctctatt gaggaagaat ctgctaaaac gaaagcttct 120
ggcatcgatc aagaacaggg cgattcgtcg aactcgcagg agaagcccc cctgaagaag 180
ccggacaaga tcatacctg cccgcgatgc aacagcatgg acaccaagtt ctgctactac 240

<210> 1489
 <211> 411
 <212> DNA
 <213> Eucalyptus grandis

<400> 1489

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| aagagttgcc | gcctccggtg | gatcaactac | ttgcggcccg | acctcaagag | gggcgctttc | 60 |
| tccccacaag | aggaggagct | gatcatccac | ttgcattcca | tccttggcaa | caggtggtcg | 120 |
| caaatcgcg | ctcggttgcc | gggacggact | gacaacgaaa | taaagaactt | ttggaactca | 180 |
| accataaaga | agaggctcaa | gaactcgtca | tcattcttct | gtagacactc | gccaaacacg | 240 |
| agcgattcct | ccttgtcatc | agacgttaaa | gatgtcatgg | gaggtctcat | ctcccttcag | 300 |
| gaacaaggac | tcattgccact | ttatatggac | tcgttgctcg | ccgtgcaagc | tttggtctct | 360 |
| aaccagggtta | tcgatccatt | actaccctca | ctcaacccaa | ggcctcgacc | t | 411 |

<210> 1490
 <211> 396
 <212> DNA
 <213> Eucalyptus grandis

<400> 1490

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gaaaaatggg | gagagggaag | attgagataa | agaggattga | gaatgcaa | agcaggcaag | 60 |
| ttacattctc | gaaaaggcgt | tctgggttgc | tcaagaaggc | gcaggagctc | tctatcctct | 120 |
| gtgatgctga | ggttgctgtc | ataatcttct | cgaatactgg | caagctttac | gagttctcca | 180 |
| gttctggaat | gaaacagata | ctatcaagat | acaacagggt | tcaagattct | ccagagtcca | 240 |
| ctgttgtaga | gtacaagcca | gagtctacga | aagaagatga | taagggtgga | gacaccctaa | 300 |
| aagatgaaat | cgcagagctg | cagatgagac | aactaaggct | actgggcaag | gacttgaatg | 360 |
| gcctgagcat | aaaggaattg | cagcaccttg | aacagc | | | 396 |

<210> 1491
 <211> 188
 <212> DNA
 <213> Eucalyptus grandis

<400> 1491

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tggatgttac | ttattgttca | attggatttg | actccaggta | acccatggac | ggaggaagag | 60 |
| catcgaaggt | ttttaattgg | tctccagaaa | ttgggtaaag | gagactggcg | agggatagct | 120 |
| cgtgactttg | tgactacaag | gactcctact | caagtggcaa | gccatgcca | gaagtattat | 180 |
| atccggca | | | | | | 188 |

<210> 1492
 <211> 461
 <212> DNA
 <213> Eucalyptus grandis

<400> 1492

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| caccggaaac | agtccatggt | cagaattatt | ctccaattca | tcaaattggc | attgatggat | 60 |
| tctttccagc | gcattccctc | ccacagaatc | cttcgtacca | ttcttactcc | cccaacaata | 120 |
| gacccaattt | ccctcctccg | tccctcaaaa | cttcacagtg | ggactatttt | tggaaccctt | 180 |
| tttcatccct | ggactactat | ggatacccca | ctcggagtag | tattgatcat | atggctatgg | 240 |
| atgatgagac | cagaggattg | aggcagggtc | gagaggaaga | ggggattcca | gacttggaag | 300 |
| aagaaactga | gcacgaagaa | tgtgatcacc | actcgtatgt | tgatgaagat | agaggcaaca | 360 |
| gagatgctaa | tttccccact | gaggaagttt | tagtggaaga | tgttgatgac | aggaagagga | 420 |
| tgaggatgaa | ggaacagaca | cagctgtgaa | tctgaggatg | a | | 461 |

<210> 1493
 <211> 445

<212> DNA
<213> Eucalyptus grandis

<400> 1493

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|-----|
| gtttcgaaga | agggcgagcc | aataagcaat | cggcatcata | tacagaagat | ggtgagcttt | 60 |
| ctgaaatgct | tgataaggta | ttgctcggct | gcggttttagg | gggtcaaata | tcgggggtgca | 120 |
| cacccgagaa | catgagccaa | tccaagggcc | cacctggctc | aaaggggtggc | aggggttcgcc | 180 |
| gtaagaagg | aaataagagc | acagcagact | tgaggagtct | tctgattctc | tgcgcccgaag | 240 |
| ctgtctctgc | taatgacttc | aggacagctt | atgaactgct | aaagcaaatt | agacaagatt | 300 |
| cttctgcctc | tgggtgatggc | tctcaaagat | tggcgcatata | ctttgccaat | gggctggaag | 360 |
| cacgccttgc | aggcagtgcc | ggtgatagac | aaaccttttt | ctattcttcc | gaattgcaga | 420 |
| agaggacagt | agctgataaa | gttga | | | | 445 |

<210> 1494

<211> 419

<212> DNA

<213> Eucalyptus grandis

<400> 1494

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| cggaaccggt | ggcaattgga | tcgtcttctc | tcgcaaagcc | gggcttaagc | gctgcggcaa | 60 |
| gagttgcagg | ctaagggtggc | tgaattacct | gaggccagac | ataaagcatg | gaggtttcac | 120 |
| tgaggaggag | gatcacgtca | tctgcactct | tttctttacc | ataggaagca | ggtgggtcggt | 180 |
| aattgcttcc | aaattgccag | gaaggacaga | taatgatgtg | agaactact | ggaacaccaa | 240 |
| gctgaagaag | aagctaata | agcaactggc | ttctctgaaa | acagtgcctg | aaagtaactt | 300 |
| tgactatcag | gtctgcgcac | agaactcggc | ctcaatcgat | cctgagacca | agaatcggga | 360 |
| atatgtctgt | aattcaatgg | gattccccaa | gcagaacttc | aatccaggaa | taccactt | 419 |

<210> 1495

<211> 388

<212> DNA

<213> Eucalyptus grandis

<400> 1495

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| ccaatggtga | cagtgttaag | gatgaccttg | atacagatga | atatgaaact | catgccacag | 60 |
| ttttggataa | gctattagca | tgaggagaaa | agctctacga | agaagtgaag | caaggtgagc | 120 |
| acatgaagct | agagtatcag | aaaaagggtg | ctttgctaaa | caagcagaag | aaacgtgggtg | 180 |
| ctagtgggtga | atccctggag | aaaacaaaag | cagctgtaag | tcatttgcac | acgacataca | 240 |
| tagttgacat | gcagtccatg | gattcaactg | cttcagaaat | aaaccacata | agggacaaac | 300 |
| agctgtaccc | aaagcttgcg | caacttgtcg | atgggatggc | gaatatgtgg | gaaaaaatgc | 360 |
| gcatgcatca | tgataagcag | gagtctat | | | | 388 |

<210> 1496

<211> 417

<212> DNA

<213> Eucalyptus grandis

<400> 1496

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| ctccctcctc | ctccaaacgt | ttccgtttct | ctccaagctg | aacatggaca | agaagccaga | 60 |
| cgacgacagt | ggtaagtccc | aagatgtcga | ggtgagaaaa | gggccgtgga | cgatggaaga | 120 |
| ggatctcatc | ctcatcaact | acatagcgaa | tcacggcgaa | ggcagttgga | actccctagc | 180 |
| caaagctgct | ggtctaaaa | gtaccgggaa | gagttgtcgg | ctccgggtggc | tgaactatct | 240 |
| gcgacccgac | gtccgggag | gcaacatcac | tactgaggag | cagctcctga | tcatggaact | 300 |
| gcatgccaa | tgagggaaca | ggtgagatgc | acataagtca | cacaactttt | cgttacatag | 360 |
| gttctacaac | ataataccca | tcgatcatat | tgaaacaagg | tccccgtggn | atcacga | 417 |

<210> 1497

<211> 404

<212> DNA
<213> Eucalyptus grandis

<400> 1497
catggacatg ctgaagagga caagaagctc atcaacttca tcttcaccca tggccaatgc 60
tggtggcggg ctgttcccaa gcttgctgga ctgctgcggg gtggaaagag ttgcaggctg 120
aggtggacca attacctgag gccagacttg aagagaggcc ttttgtccga gtatgaagag 180
aaaatggtca ttgacctcca tgcgcaactt ggcaacagat ggtcgaaaat agcctctcac 240
ctcccgggaa gaacagacaa tgagatcaag aatcactgga acactcacat caagaagaag 300
ctcaagaaga tgggcattga tctctcact cacaagccat tagtcaccaa caacgacaac 360
acaaccgatc aacaaccccc ccaagcagcc cagaccatc ccca 404

<210> 1498
<211> 340
<212> DNA
<213> Eucalyptus grandis

<400> 1498
gtcagaggca atcccaatcc aaggagttac tacaagtgc caaatgctgg atgccctgtg 60
aggaagcatg tggagagggc ctctcatgat ccaaaagctg ttattactac ttatgaggga 120
aaacacaatc atgatgttcc cactgcaaaa tctagcagcc atgacactgc agctccctcc 180
gctctaagtg gactgccaag aacaagatca gaagggtgaaa cagtgagcct agatcttggt 240
gtgggaagaa gtgcggcatc agaaatggcg tcagctgaga agcagcagat cctccggcca 300
aaccctgtcc aaagtcgaat ccactatgcc agttccgctt 340

<210> 1499
<211> 311
<212> DNA
<213> Eucalyptus grandis

<400> 1499
gagatggcga ggacaccatg ctgtgagaag atggggatga agaaagggcc gtggactcca 60
gaggaagacc agatcctgat ctcccacatc caccagtttg gtcactcaaa ctggcgtgca 120
cttcctagac aagcaggtct gttaagatgt gggaagagtt gcagactccg gtggataaac 180
tacttgcgac ccgacgtgaa gcgagggaac ttcaccgacg acgaaagaga caccatcatt 240
gaacttcatc aagttcttgg caacagatgg tcggccatag cctcgagatt gccggggcga 300
acggacaatg a 311

<210> 1500
<211> 324
<212> DNA
<213> Eucalyptus grandis

<400> 1500
gttgaatggg gattcaaaca atggcttcac aaggcggcgg cggcagcagc ggtaatgcc 60
gaggtggcgg tggcaataat ggaaaatcca ctgaagttca gccattgact cggcagaatt 120
caatatacag tctcactctt gatgaggttc aaaaccagtt aggtgattta gggaagccat 180
tgagcagcat gaacctggac gagcttttga agaattgtctg gacagctgag gccggtcagt 240
caatgtttat ggatgttgag ggcacggctg tggctaataa aaatgctctc ccccgtcagg 300
gaagcgtttc attaactggg gcat 324

<210> 1501
<211> 380
<212> DNA
<213> Eucalyptus grandis

<400> 1501

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|-----|
| ctctctccct | ctccctctcc | ctctccctct | ccttctccct | ccctctcttc | gatgacacgg | 60 |
| ggctagataa | gttttagggt | tcttgagttc | ttgtctcttc | tctctctctc | cctgtagaga | 120 |
| ttttttattg | gagctttttt | tttttttttg | gttcctgggtg | ttcttgctcg | tggtcatagc | 180 |
| aagaaaagag | agatggggag | agggagggtt | cagctgaaga | ggatcgagaa | caagatcagt | 240 |
| aggcaagtga | ctttctcgaa | gcgacggact | gggttgctca | agaaagccca | cgagatctcc | 300 |
| gttttggtgcg | acgccgacgt | cgctctcatc | gtcttctcca | ccaagggaag | cttttcgagt | 360 |
| tttcgactga | ctcttgcattg | | | | | 380 |

<210> 1502
 <211> 347
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|-----|
| <400> 1502 | | | | | | |
| gaactacctc | tgagagtcga | cgactcagag | gatatgttgg | tatatggcgc | tttggtcgat | 60 |
| gcactcagtt | ctgggtgggc | gacgccttcg | gcttcgaatc | aagaacttga | tttcgaaacg | 120 |
| aggactgttg | ataacgacgg | cattgggtctg | gagctgcaga | cgagaccgga | gatgggtgaag | 180 |
| cgcgagatga | gagcgccagt | caggacgggtg | cattacagag | gagtgaggag | gcggccatgg | 240 |
| ggaaaatatg | cagcagagat | aagagacccc | aagaagaacg | gcgcgaggat | ttgggtcggg | 300 |
| acttacgagc | tgcttgagga | cgcggcattg | gcctatgacc | ggccgct | | 347 |

<210> 1503
 <211> 312
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1503 | | | | | | |
| ggtttgctca | gatgcagcaa | gagctgcagg | ctcagatgga | ctaattacct | ccgtcccggg | 60 |
| atcaagcgcg | gtagcttcac | ggaccaagag | gaaaagatga | tcgtccacct | tcagggtctt | 120 |
| cttggttaata | gngggcgcc | catagcttcg | taccttcctc | agaggactga | caatgatatc | 180 |
| aagaactact | ggaataccca | tttgaagaag | aagctgaaga | agcttcaagg | ccaagcaaat | 240 |
| cctgatgatg | atgaccataa | tcatacccca | caagggttca | acgcaacttc | acactccaac | 300 |
| cccaaggggc | ag | | | | | 312 |

<210> 1504
 <211> 468
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|-----|
| <400> 1504 | | | | | | |
| agcacggtct | catgagcact | cgcaattaga | aattaatcct | ccatcagaag | catcaaaaaga | 60 |
| gccactccca | gatgaaccat | ctcttatgcc | aaatgaggat | tcacatcagc | tctctccatc | 120 |
| agaagctacc | acttccatgg | ccgaatcctc | tgatttcggt | agttccagtc | acaaatggga | 180 |
| agctcttccc | atggttctag | agaagcccac | tgaagatggg | tataattgga | ggaagtatgg | 240 |
| ccagaagcag | gtcaagggtc | gtggttttcc | caggagctac | tataaatgta | gccatctcaa | 300 |
| ttgctcagtc | aagaaaaagg | ttgagcattc | tcttgatggg | cgtataacgg | aaattactta | 360 |
| cagagggcaa | caccagcatg | aaatgcctca | agccaaaagg | acttcaaaaag | atggtaacaa | 420 |
| cttgaacagg | agcacaaatt | ctctggctaa | atctcaagct | gttcttca | | 468 |

<210> 1505
 <211> 415
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1505 | | | | | | |
| caagctacaa | tggtgattca | tatcacttga | tatttaagaa | ttgcaaccac | ttctgcaagg | 60 |
| atgtttgtta | caagctgaca | gggaaaccga | ttccaaagtg | ggtcaatcga | cttgcgacaa | 120 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| taggttctgc | ctgcgactgc | ttccttcctg | aaacccttaa | gatcactgca | gtacgtcatg | 180 |
| aacctaactg | ccaaccatgc | gaaagtgaga | agcggagggt | aacaaacaac | ttcagttgcc | 240 |
| tgtcttctat | atcaatgagg | cagaagcagt | tatctacatc | ctcattattc | cttcgttctc | 300 |
| ccctgagagg | ctgtctaccg | ccttggggaa | tcaaaaggtc | taacaatggc | tccttgaagg | 360 |
| aaagatgaga | aatgcccag | agtgaaacta | catcacaagc | gatcatggag | cgctg | 415 |

<210> 1506
 <211> 512
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|-------------|-------------|------------|------------|------------|-----|
| <400> 1506 | | | | | | |
| ctctattcca | ctcctaattc | atgcttttctg | tgacaataat | tttgtagcat | gctcaaaact | 60 |
| ctagagagat | atcagaagtg | caactatgga | gccctggagc | cgaacgtgtc | cgcgagagaa | 120 |
| tccttggagt | taagctgtca | gcaggaaat | ttgagactta | aggcacgtta | cgaagcccta | 180 |
| cagcgaactc | aaaggtattg | aagtttctat | tgctccttta | attaaatgtc | agcattcgcg | 240 |
| ggatgtagtt | attttcctac | atgattgggg | tctatctgtg | tcatcgngaa | ctaggaatct | 300 |
| tctgggagaa | gaacttggcc | agttaagcag | caaagaactc | gagtccttgg | aaagacagct | 360 |
| agatgggtca | ttgaagcaga | tcagatcacg | aagagtatgt | aaattatatt | cacgaattct | 420 |
| atctaagtca | catcctgagt | tattgngaag | acaagttact | gnngtcaatc | gctgggatta | 480 |
| gtgggtcatcg | gtctgggctaa | ctttagtagc | ga | | | 512 |

<210> 1507
 <211> 342
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| <400> 1507 | | | | | | |
| tctagaacaa | gatcaacagg | caagtgcagt | tcgcgaagag | gaggaatggg | ctcctcaaga | 60 |
| aagcctacga | gctctccgtg | ctttgcgacg | cggaggtcgc | tctaatacatc | ttctcccata | 120 |
| gaggaaagct | gtacgagttc | tgacgagcgt | caagcatgct | caaaaccttg | gaaaggtatc | 180 |
| aaaaatgcaa | ctatggagca | cgggaaccta | gcattctctac | ccgggaagca | caactggagc | 240 |
| taagcagtc | gcagggaat | ctgaaactta | aggcacgcta | tgaagcccta | cagcgaacgc | 300 |
| aaaggaatct | tcttggggaa | gaattaggcc | ctctgagcag | ca | | 342 |

<210> 1508
 <211> 413
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1508 | | | | | | |
| atgacctcga | actaaaagt | cgagaactgg | aaactgtcat | gctaggaccc | agctcagata | 60 |
| tgccccacac | ggttgatatt | aacttcttgg | ttggatctgg | ccagatgtct | caggagacgg | 120 |
| agacattgat | ggagattatc | tccaggaggg | acctaaagga | gattctctgt | gcttgtgcta | 180 |
| aagcagttga | agacaacgac | accttaaaat | ttgagtgttt | aatatcagag | ttacgcccga | 240 |
| tggtgtctgt | ttccggtgac | ccgatccaac | gattatcagc | atacatgttg | gaagggtca | 300 |
| tagcaagatt | ggcaagttcg | ggaagctcta | tttacaagc | tttaaagtgc | aaagagcctg | 360 |
| ctgggtgcaga | gctgctatcg | aacatgcaca | ttctctatga | tatatgtcct | tat | 413 |

<210> 1509
 <211> 296
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1509 | | | | | | |
| attgaatgaa | ccgggcat | cggtggaagg | aatacaagaa | gcccgcgccg | tgcaaaattc | 60 |
| aacagattcg | gagattgtag | gtgatggatt | tcgggtggagg | aagtatgggc | aaaaggttgt | 120 |

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| gaaaggaaaac | ccgtatccca | gctactatag | atgcaccagt | gtcaagtgca | atgtgcggaa | 180 |
| gcacgtcgaa | agagcttcag | aagatccgag | agcctttata | acaacatatg | agggaaaaca | 240 |
| taaccatgag | atgccactaa | gaagtaccac | acagcaggct | cagagtccga | tctgca | 296 |

<210> 1510
 <211> 441
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1510 | | | | | | |
| attccttctt | ctctctcttc | gaaaaccctt | tctctctctt | cgatctctct | ctctttctct | 60 |
| ctcctctgtg | attgcagatc | aggctccac | gccgttccat | tcgcgcatct | ccgacctcct | 120 |
| ctctccacgc | ggccactgtc | ccgtcgcgcg | aattcacccc | gccgtcgtag | gagaccgcat | 180 |
| cctacgccgc | cgcgccgatg | gcggcgccac | gaggagatgc | caggggaagg | aatcaattac | 240 |
| ttcctcgtaa | ctggcccagg | ataacagatc | aagagctaca | acaaatctct | ggagactcaa | 300 |
| actctgtaat | cactcctctg | tttgagaaaa | tggtgagtgc | tagtgatgca | ggtaaaattg | 360 |
| gacgtttagt | gctgccaaaga | aaatgtgccg | aggctatttt | ccggctattt | cccagcctga | 420 |
| aaggatttgc | cgtaaaagtt | c | | | | 441 |

<210> 1511
 <211> 315
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1511 | | | | | | |
| tgatgggaaa | ctctcatgtt | cttccaatct | gaagagcttc | ttcacaacag | ctgcgtcacg | 60 |
| aggtgatttc | cagattcaat | ggtccgagtt | cgccggacgc | ggcggcgctg | ccggtagcat | 120 |
| ctaaaagcat | tgacctggaa | agaaaatagga | ggaagaagct | caatgaaagg | ctcttcgcac | 180 |
| tcagagccct | tgtaccaag | ataagcaaga | tggataaggc | ttcgatagtg | aaagatgcta | 240 |
| ttgattacat | ccaagacttg | cgtgaacaag | aaggnaagat | ccgagccgag | atcgagagc | 300 |
| tcgaatctgt | aattc | | | | | 315 |

<210> 1512
 <211> 409
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1512 | | | | | | |
| gagagacaga | agaattagaa | cgacacgaac | aggcaagtga | cctactcgaa | gcggaggaat | 60 |
| ggcatcttca | agaaagccca | cgagctcacc | gtcctctgcy | acgctagggg | ttccatcctc | 120 |
| atgctctccg | gcaacaagaa | gctccacgag | tacatcagcc | ccaccaccac | gacaaaaagg | 180 |
| atgattgatg | attaccagaa | ggctcttggg | atcgatctgt | ggactacaca | ctacgataga | 240 |
| atgcaagagg | agttgaggaa | actgaaggag | gttaataaca | attttcggaa | ggaaataagg | 300 |
| cagatattgg | gccacgattt | gaacgagctg | agctacgcag | aactgcacag | tctccgagca | 360 |
| gacgatccga | gtcttctgtc | aattcaagtg | cgggaaagaa | agtaccatg | | 409 |

<210> 1513
 <211> 323
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1513 | | | | | | |
| ggagagagtt | gagaggcctg | agacatataa | gcagtggcaa | atccgcaaca | cgagggcggg | 60 |
| ttttaagccc | ctccccctgg | atcccgtaat | tatgaagaag | ctgaagtcca | aattgaaaga | 120 |
| ggggtacctt | gatgatttgc | tggttgacaa | agatgggtcaa | tggatgctcc | aaggatggaa | 180 |
| aggtcggatt | ctttatgctt | cctcctgttg | ggaacctgtg | tagaatttct | ccaagtcttt | 240 |
| atatgcttgt | ccttttggtg | tgagccgggg | atagtttatg | acgaccaagg | aggaagctgt | 300 |

tggctgattc gtggcaagta agg

323

<210> 1514
<211> 285
<212> DNA
<213> Eucalyptus grandis

<400> 1514
gtaatggaan gccacgagga gatnccaggg gaaggaatca attacttcct cgttactggc 60
ccaggataac agatcaagag ctacaacaaa tctcaggaga ctcgaactct gtaatcactc 120
ctctgtttga gaaaatgttg agtgctagtg atgcaggtaa aattggacgt ttagtgctgc 180
caagaaaatg tgccgaggcc tattttccgt ctatttctca gcttgaagga ttgccactca 240
aagttcagga tgccaaaggc ttcggagtgg atatttcaat ttcgt 285

<210> 1515
<211> 290
<212> DNA
<213> Eucalyptus grandis

<400> 1515
aaaacactag tggaggccca gaattcggac acgaggttca gttagtgggtg atataagttg 60
gcaaggcact gacaaacatg gactccctag ggatgccttc ttgcttcccg gaatgtcggc 120
cccagagagg aaaagagcac gcaacattgg gtccaaaagt aaaaggctgt tgattgacag 180
tcaagatgct cttgagctga aaatgacatg ggaagaactc caggatttgc ttcggccacc 240
gagtgttaac ccaagcattg ttacagttga agaccatgag tttgaagagt 290

<210> 1516
<211> 357
<212> DNA
<213> Eucalyptus grandis

<400> 1516
gttcagttag tgggtgatata agttggcaag gcactganaa acatggactc cctagggatg 60
ccttcttgct tcccggaatg tccgccccag agaggaaaag agcacgcaac attgggtcca 120
aaagtaaaaag gctgttgatt gacagtcaag atgctcttga gctgaaaatg acatgggaag 180
aactccagga tttgcttcgg ccaccgagtg ttaacccaag cattgttaca gttgaagacc 240
atgagtttga agagtatgat gaacctccgg tttttggaaa aagcagtatt tttatacttc 300
gctccactgg gggacaagag caatgggttc aatgtgatag ctgtggtaaa tggagaa 357

<210> 1517
<211> 416
<212> DNA
<213> Eucalyptus grandis

<400> 1517
caagattctt ctcccccttc gttccttcga ggggccaaaa cttctctctt tctctctctg 60
tgtgcggctg gaagagagat cttggaggct gtgaatcttg gtttctttct cttttggttg 120
acgggtcaca taacacgaat ctagggttct tgatcttttg tgggtgtctt tcgaattcga 180
aggaagaaaa gccaaagaaac aagaaaaatgg gtgtggagac cacctccgga tcgggctcgg 240
aatgcgagac gcgtgtgatg ctgaacgtct acgatctcac gccattaac aattacaccc 300
gctggttcgg cttcggcatc ttccattcgg gcattgaagt tcatggcaaa gagtatgggt 360
ttggtgcca tgacttcctt gttagtgggg tttttgaagt ggaaccaaag agctgc 416

<210> 1518
<211> 218
<212> DNA
<213> Eucalyptus grandis

<400> 1518
 attcgaccag tgtcgggtacc aaaaccacca cggctctctcc catctcctcc ggccgaaagc 60
 cctctcaatg aagcgggtgg gagtccctcc gaaaccaaac aagctttaca ggggagtggag 120
 gcagaggcac tgggggaaat ggggtggctga gatcagactt cccaagaaca ggacacgcct 180
 ctggctcggc actttcgaca ccgccgagga ggctgctc 218

<210> 1519
 <211> 337
 <212> DNA
 <213> Eucalyptus grandis

<400> 1519
 ctcaaaccag aagggccttc ctctgcggnt tcaagatgta aagggaaggg aagtgggtgt 60
 ttccagttcag attttggccc aataataaca gcagaatgta cgtgttgagg ggtgtaactc 120
 cttgcataca atctatgcag ttacaagctg gagacactgt aacttttagc cgcattggacc 180
 ctgaagcgaa acttataatg ggtttccgga aagcatcaac ctctatgatg caggacagcc 240
 aactagctgc tgtttctaac ggtaaccatt caagtgaagc tttgatttct ggtgggtttg 300
 aaaatgtacc tatgataagt ggggtattcga gtctcct 337

<210> 1520
 <211> 439
 <212> DNA
 <213> Eucalyptus grandis

<400> 1520
 gagcgcttgg cggcctctga taggagaccg gccaaactgct tcgaatgatg caagtgatgg 60
 accggttaaca ggacttgacac tgtcaaagtg ccgcacgctc atcgggtctgc cagaaactca 120
 cggagagaga gagatggcgg agagagagga gaaggggaag tacgacgaga tgatgatgaa 180
 gaagggggagc gacggaggga tagcggaggt gaatcccacg ccgaagaagg gggtgacgtc 240
 caaggttgtg gactacattg agaagctgat cgtgaagtcc atgtacgact cctctctgcc 300
 tcaccaatac ctcgcccggca acttcgctcc cgtcgcgcag gagaccctc ccgtcaccga 360
 cctccccgtc gtcggccatc tccctgattg cttgaatgga gaattcgtcc ggggtgggcc 420
 caatcccaag tttgccccg 439

<210> 1521
 <211> 448
 <212> DNA
 <213> Eucalyptus grandis

<400> 1521
 attggattct accggaaatt tgcgcgccgt tgggggtttt ttgatgtcgg aggatgggggt 60
 cgtcgacagaa gtgcatgaat gtgctgtgcg aggagaaggg gtcgaccgag tggaagagag 120
 gttggccccct ccgatctggt caactcgcca ccctctgcga taagtgcggg tctgcatttg 180
 aacaggccac gttttgcgaa gttttccact cgaaggactc tggatggagg gactgcgctt 240
 cctgtggcaa ggcctgcat tgcggatgca ttgcttcgag gatgctgctg gagctgctc 300
 attgtggcgg gatcaactgc gcgacctgtg cgaaaagtcc aggacttctg cctatcgcaa 360
 gtgatgagag gcctagttag tttggcatga ttaatgttcg tactgggtgaa ctgcaatcta 420
 gtaccacaga caaccatttc gatagcga 448

<210> 1522
 <211> 439
 <212> DNA
 <213> Eucalyptus grandis

<400> 1522
 cacaacaccc ccatatcagt aaacacttct cgctgctcca gccagcttct gtctcatata 60

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| aacactagcc | ccacctcact | cattatccgc | ttcgctccta | ctcaactgct | atcgcgctat | 120 |
| cccagcgcag | acgtcctccc | atgaacttct | ccgacaagga | agtgacagctc | gcgtccgacc | 180 |
| acccgaagaa | gccccccggg | agaaaagaagt | tccgggagac | ccgccacccc | gtgtaccgcg | 240 |
| gggtgcgtct | gcgcgactcg | ggcaagtggg | tctgcgaggt | tcgcgagccc | aaaaagaagt | 300 |
| cgaggatctg | gctcggcacc | ttccctactg | tggagatggc | agcgagggcg | catgacgtgg | 360 |
| cagcgctcgc | gctgagaggc | cagtctgcct | gcctcaactt | cgcagactct | gcgtggcggg | 420 |
| tgccaagcc | ggcatcgac | | | | | 439 |

<210> 1523
 <211> 361
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| <400> 1523 | | | | | | |
| gcctggtgaa | cgaagttttc | gagagtggcc | aactttccca | tcgcaatagc | catttgggccc | 60 |
| atgtattctg | cgacgttgcc | tgaaccagta | ggactcagtg | tggtcgaaga | aagcgtgtcc | 120 |
| acgagagatt | gctgcagagc | ttccattccc | tgagataaag | catcttcagc | ctgtttgtgaa | 180 |
| gatttgctgca | gattacatat | gccccatcaac | tggtgatccg | tcaaaggctc | caggtgggttc | 240 |
| cctagtatct | tgagaagtgc | agatgaacgg | aaaccgcccc | accacatgaa | acacctctcg | 300 |
| gcggggcgtct | tccacatgcc | agagagtatg | tggaacacat | cggccttcgc | acctatgttc | 360 |
| t | | | | | | 361 |

<210> 1524
 <211> 422
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|-----|
| <400> 1524 | | | | | | |
| ccgactcagc | aaagccaaaag | aaagaaacca | gaaacagcag | accagaccat | tccattccat | 60 |
| tccatttcgc | attctctact | acagactcgc | agagatggtg | aagagagaca | gagaggacgc | 120 |
| ggaggtcgaa | gccctggccg | tggccaactg | cttgatgctc | ctccccgag | tcggcgagtg | 180 |
| cgccgactcg | aaccgcgaat | cgcggtctac | agagcggtatg | ttcgcggtgca | agacgtgcaa | 240 |
| ccgcgagttc | tcctcattcc | aggcgctcgg | agggcataga | accagccaca | agaagcagaa | 300 |
| gctgatcccc | ggcggcctct | tccacctcgg | ctgcaccgcg | gattcctcgc | cagccaagcc | 360 |
| gaagaggcac | gagtgtctga | tatgcggcct | cgagttcccc | atgggccaag | cccttggcgg | 420 |
| tc | | | | | | 422 |

<210> 1525
 <211> 443
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| <400> 1525 | | | | | | |
| ctcgatgatc | gacacttgca | cgctagtctc | ggatggcggtg | ggctggagag | gaggtggcgg | 60 |
| cgactccacg | gccttggggt | tggccccgct | gccgccctcg | acgatcctca | ttttcctctt | 120 |
| gtcagaccca | gaccggggca | agcttgctcg | ggaggaccgt | tctactgacg | aggccgcgct | 180 |
| tcgtagatcc | ttcaaaactag | tcgtcctctg | caactctcct | tgttttgtcc | tgtggtcagc | 240 |
| ctccatttgt | cgatttcctg | cctcgagatc | ttggatcttc | ttcctaagtt | gcttcacata | 300 |
| ttctatggta | tcccccaata | tggaggcctt | atccattttg | gtcacgaacg | gcaccagtga | 360 |
| cctcagtata | atgaacctct | cgttgagctt | ctcgcggcgg | cggcgctccg | ccaggacatg | 420 |
| gttggcgctg | agctcgctct | gcg | | | | 443 |

<210> 1526
 <211> 379
 <212> DNA
 <213> Eucalyptus grandis

<400> 1526
 gtcctccaca gttgcggcag attgtaaaag tccccacgca ctcgttgctc atatgaccca 60
 cctgctgaca gttcctacac acgacatccc tgaaaccgcc accgccaccg ccgccaccgc 120
 cgccaccgcc gctgcgcccc acaccaccac ctcgctctcc catgacattg cctttaggac 180
 actgcctagc cacgtgcccc gatatgttgc acatattgca gactgggtca ttcgggcaat 240
 cacgtgccag gtggccagtt ttcctacagt tgttgcatgc cttctcattc gtacagtcag 300
 ctgcaatgtg cccttgcttg tagcagttgt tgcatagcct caagtcacca ggaggagcgc 360
 tgcattctct agcaatatg 379

<210> 1527
 <211> 419
 <212> DNA
 <213> Eucalyptus grandis

<400> 1527
 gttacattga ttgacatgtg aaccgcgtctt ttcttttttt ttcagtagtg gcaatccacc 60
 aaggcgggag aggctagtat gatgggctgt tgacttggtg cgaattggaa cttcgagttc 120
 tcccggcggc ggtgcgcttg gtgggtggtga tctctctcgc tcggggccgg cagggttcagg 180
 tccaaggaga ggatgttgcg ggacttctcg gtggtgatgg ccgcagcagc cggcgggttg 240
 gtggggctcg tcgcgtcggc gctggtggcc gtcggcgggc gggcggacct gtgccgcctc 300
 atgtggccgc ccaaggcctg acccgacgcg aactcggacc cacatatgtt gactcgtgg 360
 atcttggggt tgctcgcttg atggagcccc ttgtggctgg ccacgtgggc ggagagggg 419

<210> 1528
 <211> 381
 <212> DNA
 <213> Eucalyptus grandis

<400> 1528
 cttgcctcac gattgaagaa gaaaagagca gcagaagaag cgtttccggt gctatgggtca 60
 ttattttgag caatcgaga acgggcaact gagcggttca tcttttcggt ggccctataa 120
 acaactcggc ctcaacatcc atagactccg cgcggtttc ttcacgaggc gggtcgctgg 180
 agaccggggt caatcctttg ccgcattcaa tctcttgaag tagctttctc ttttcttcca 240
 gtagtttccg ctctctgctt tttagccgct caatatgctc cctaattaaa tgggtctttc 300
 ttgccctgat cttggttaga cttctttcca actgggtttc tgtttggttg agctcctcga 360
 ccgaacagga atccagacct t 381

<210> 1529
 <211> 524
 <212> DNA
 <213> Eucalyptus grandis

<400> 1529
 ctctcagcat aatctctctc tctctctctc tctctctctc tctcctgcgc tctgcgcagg 60
 agcttattct tttattcttt tcttcttctt cttttctggt gggtagattt gtaaattagt 120
 agggcgaaat ccggaccttc ttcttcttgc tcccctttct tcctgcagct cgaatcgat 180
 cgtttcgtcc gtccgtccat ccgatcgaca tggccgcagt cttccagctc gacggcgacc 240
 cgctgcccga cgccctcccc gattcgccgg ttgtcgatca ggagaaaatg ccgatcgca 300
 cgagccatga tttatgcta catggggggg tttgtcgat atgcttgagg aagattgtgc 360
 tccaagaaac tgccctcgta aaaggttgcg agcacgccta ctgtgtgata tgcattctcc 420
 gctgggcctc atgtaaggag agaccaacct gccctcagtg taaacatcct ttcgacttcc 480
 tcaacgttca tcgctcgctc gatggcagca tccgtgatac atgt 524

<210> 1530
 <211> 185
 <212> DNA
 <213> Eucalyptus grandis

<400> 1530
gaactggctg tctgggatca acatagggaa gcgagtgcac atgtttatca aaaggaccca 60
gaggtccaga tgtagtccta acagatnggc tgtcaatact agcacagggg atttcaccag 120
acatcggtcg cccattgggt agaagaggga ttggatgtcg agattcatgt ctagaagaag 180
aagaa 185

<210> 1531
<211> 385
<212> DNA
<213> Eucalyptus grandis

<400> 1531
tcagctagcc gctccacccg cttcttcacc cggcagttgt cctgcgtgca gcggtagtag 60
cttctgggat gttgagtgtt cttgaccacc ttctgaccgt acttcctcca tttgtaccca 120
tcgtccagga catccacatc gctcatggtc ttgaagcaaa acctcggctc cctcaccttc 180
ctcctcccct ttatcttctt catcttcaag gctgaaaccc ccatgctctg gtggtggtgg 240
tgatcacgat aatgatcgcc atgatctcca ccgccggatg aggatctcat gaccaagctg 300
ctctgggtcac tcaactcacc ccatgccag agattcgggg ttgatctttg caaagacaga 360
agctggggggc ctcccaagag ttcag 385

<210> 1532
<211> 153
<212> DNA
<213> Eucalyptus grandis

<400> 1532
tcgggggtcaa tccatctggt gcagaacata aacgcctgct ttggtcccag gcattttctg 60
cacagggtcca cctaggagga agaagaacat ctactggtaa cttctctcat ttaccacagc 120
tatcacattg aaccattgc tcttggtccc ccc 153

<210> 1533
<211> 417
<212> DNA
<213> Eucalyptus grandis

<400> 1533
cagaaagtga ctgcgccctag tgtaggagta gggagaggct tggatgcaca ttccatttcg 60
cctccttgaa gccctccaac ggcgcagata tttccttgct tttttaggca aaatggtgaa 120
aaactggtga taataaaaag aagccctggt tagctataaa gggaagcccc atcctttctc 180
ctccctttct ctttcttacc tgtecccccc tcccctctcc tggctctcgc tctctctctc 240
tctctcagtt ctttctcgga cgggtgtctg tgctggtgct ttgatcggtc atcacctgag 300
gccgcgtctg caagcaagtg aagaaggagg acaaggaata tggcgagaga gaagatcaag 360
atcaagaaga tagacaatgt gacggcgagg caggtgacgt ttctaagaag gagacga 417

<210> 1534
<211> 574
<212> DNA
<213> Eucalyptus grandis

<400> 1534
gtccttggtga cgacaaagt cggggaaata cttcgccaat cgcctttccc atatttatct 60
aggcctagaa gaaataacct gtgttcttcc tcggtccaag caatcccctt cttctctctc 120
tgatccgacc tcgagccttt ccctccctgg tttgactcgc cgctaccgcc gccgcccttc 180
ttctgtctct cctcctcccc taagttactg gcggagccat ccgagcaagc cgaactgtag 240
gacggcagag gcacgcggcc agcctctatc ctattgacat cttccaccag gtctctgtag 300
tggagcttaa tctcctctag ggttttgccg ggcacgtcgg acgctacctt ctcccacaa 360

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tccggggaaa | cctcgaagtg | ggtagccagg | gcattctcga | acgccttgtc | ctgttcctta | 420 |
| ctccacgagg | aacaactagg | gctcactgct | tcatcgacag | tcatcaaagc | aaaacccaca | 480 |
| cacccttcca | actccgaacg | acttcacgcg | actcagcagc | gcgaccaa | gaaactcgac | 540 |
| ggcaaaatct | acggagctat | cgaaccaacc | ccaa | | | 574 |

<210> 1535
 <211> 497
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1535 | | | | | | |
| accgacctcc | tctctccacg | cggccactgt | cccgtcgcgc | gaattcgccc | cgccgtcgtg | 60 |
| ggagaccgca | tcctccgccc | ccgcggcgat | ggccccagct | tcattccctg | cgctagcaac | 120 |
| gcatttcaat | ggaagtatgc | tcaatgatac | taactcatct | ggtgaaagtc | acacacgtaa | 180 |
| tggaaggcca | cgaggagatg | ccaggggaa | gaatcaatta | cttcctcgtt | actggcccag | 240 |
| gataacagat | caagagctac | aacaaatctc | aggagactcg | aactctgtaa | tcactcctct | 300 |
| gtttgagaaa | atgttgagt | ctagtgatgc | aggtaaaatt | ggacgtttag | tgctgccaa | 360 |
| aaaatgtgcc | gaggcctatt | ttccgtctat | ttctcagctt | gaaggattgc | caactcaaag | 420 |
| tcangatgcc | aaaggctcgg | agtggatatt | caatttcgat | tctggccaat | aataatagta | 480 |
| gaatgtatgt | tctggaa | | | | | 497 |

<210> 1536
 <211> 454
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1536 | | | | | | |
| gttcttctc | gtctccatga | cgcctccttc | ggcaacgacg | gcagcttgcc | cggccaggcc | 60 |
| ctgtacgggt | cgaccccgct | ttgggtgtcg | ggcggggacc | gcctcgccga | ctgcggctgc | 120 |
| gagagggcga | acaggcgccg | attttcgggc | tcaacaccat | ggctgtcgtc | cccgtgatcg | 180 |
| gcggggctcg | cgaattgggc | tccacggagc | cgatctacca | tagcccagat | ctgctgaaca | 240 |
| aggtcaggaa | tttgttcaat | ttcactgggt | ggatggaatt | agggtttggg | gggaatggta | 300 |
| acgatcaggg | cgagagcgat | cctttcttcg | ctctggctca | atgatccggc | gggcacggtc | 360 |
| gaggtcaaag | acagcgccgt | cgccgggcgg | ccgcggtcaa | gggttcttcg | aattataacg | 420 |
| gtagcaatca | tgggtctaaa | tcgattcaac | tcga | | | 454 |

<210> 1537
 <211> 266
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1537 | | | | | | |
| catcaatggc | atcgcttttg | ttcccgcagg | ctatgctgca | ctgccctgca | caatacacag | 60 |
| aagcaatgca | ccaaatctgc | agccacaggt | aaggcgggga | tcaagaggat | tcgtaggcaa | 120 |
| caggaggctg | ccccttcgcc | gccagaggag | gcaactttga | atcagcaaac | tccaccgtac | 180 |
| agaggcgtgc | gtcgtcgcaa | ctgggggaaa | tgggtgtccg | aaattcgaga | accgaaaaag | 240 |
| aaaacccgaa | tctgggtcgg | ctcctt | | | | 266 |

<210> 1538
 <211> 426
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|------------|------------|-------------|--------------|-----|
| <400> 1538 | | | | | | |
| gcataattcta | tatgaagttt | gtccttattt | caaatttggt | tatgtagctg | caaattgggtgc | 60 |
| catcgcgga | gcattttaaag | acaaagacag | ggtgcacatt | attgattttc | agatcgctca | 120 |
| aggtagccag | tgggtaacat | taattcaagc | atttgcagca | agacaagggtg | gttcgcctca | 180 |

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| tggttcgcatc | acaggtgtgg | atgatcctca | atcagagtat | gctcgaggtc | aaggattaaa | 240 |
| tttagttggc | gaaagattat | caaagcttgc | agaaagctac | caagttcctt | tcgaatttca | 300 |
| tggtttgtct | gtttttgggt | ctgacgttca | tgctgagatg | cttaagattc | ggcctgggga | 360 |
| agctttggct | gtaaattttc | ctttgcagct | ccatcatatg | cctgatgaga | gtgtgaatac | 420 |
| aagtaa | | | | | | 426 |

<210> 1539
 <211> 447
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1539 | | | | | | |
| cgacggcgtg | gtttttacac | agtcttcgga | ctcttcttgc | tcggagtctt | cccaaccacg | 60 |
| gccggcaaa | aaatacaaaa | aaacccatag | caagaaagcc | caagacggct | ctcagccacg | 120 |
| aaggtgcagc | cattgtcctt | tacagaagac | tcctcagtg | agagccggac | ccttgggacc | 180 |
| gaagacgctc | tgtaatgctt | gtggtgttag | gttcaaattc | ggcagactcg | taccagagta | 240 |
| ccgcccggca | ataagcccca | ctttttttga | gcgaggttca | ctccaatagc | cacagaaaaa | 300 |
| tcctcgaaat | gagacgcaa | aaagaagaag | aacaacagag | gccagagcta | acgtcccaga | 360 |
| cgtgttcaag | cggcgccaac | gagtcatttt | cagacaattc | tttaccgtct | gaagagtccc | 420 |
| ttctagttta | acccacaggc | gtgaaat | | | | 447 |

<210> 1540
 <211> 382
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1540 | | | | | | |
| gaggaaatgg | gtgtcggaag | ttcgaattcc | caattccagt | ggcagaattt | ggttgggctc | 60 |
| ctacgacacc | ccggaaaaag | ctgcccgtgc | atatgacttt | gccgtgtatt | gcctcagagg | 120 |
| gtccaaggcc | aagttcaatt | ttccccactc | tcggccgaaa | ttttcctgcy | cttcatttct | 180 |
| atcaccgcag | caaattcaaa | ccgcggcgcc | caagttcgcc | gcagaagaat | tcgggcttct | 240 |
| ttccgaaaat | ggcgcgccat | cctcatcata | tggtttggaa | aaggnttatg | acattaatag | 300 |
| cgaacagatt | acttgggaag | agggtgcgac | atttggggat | tcagtagcat | ttgaaagtat | 360 |
| ggagaatggc | ggatctttca | ac | | | | 382 |

<210> 1541
 <211> 368
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1541 | | | | | | |
| ggtgatttga | gagggaatag | cacggaattt | tgtcataaca | cgaacaccta | caccaggtag | 60 |
| ccagccatgc | cccagaaata | ttttatttga | cagagcaata | tgactagaaa | gaagagacgt | 120 |
| tccagtctgt | ttgacatgac | gccggtgagt | tttttcttcc | tgtcttaaat | tcttgggtgtg | 180 |
| gtgggcatgg | aagggtattca | ggaggcgtct | tgggcaaaga | tccccaaaa | tggatttgca | 240 |
| atcaatcatg | attcataatt | gttctgaaaa | ttatgctaag | aactaatctc | atctttcaa | 300 |
| cctcaaatgg | tattcttttg | tttgaagttg | nttctaagtt | tctttaatgt | ctattcataa | 360 |
| tttcattt | | | | | | 368 |

<210> 1542
 <211> 370
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1542 | | | | | | |
| caagcctaga | gtatgatttg | gcctaccagg | ccttctatca | gcttcttctt | tatcacaat | 60 |
| tcttgacttt | cacaagcaac | caggcaatac | aagaagcggg | ggacaatgct | tctaatatct | 120 |

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| atatcattga | cctcagagatc | agacaaggcc | ttcagtggcc | cagcttcata | caatcgctag | 180 |
| cccacaggcc | tggaggacct | ccgaagctgc | tcaagatcac | agcgatagga | caagacgaga | 240 |
| agaggctcaa | acagacaggt | aggcgtttgc | ttgagtttgc | agaatcaatg | gagattgcat | 300 |
| ttgcttttca | cccggttgtt | gtggacttgg | agaacctgga | tgaatcggcc | ctcaatataa | 360 |
| aagcccacga | | | | | | 370 |

<210> 1543
 <211> 404
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1543 | | | | | | |
| gcggagtatg | ttcaaagcgg | gtggtgattt | agccgagggc | gaagaggagg | acgaagaagg | 60 |
| gcttcgtaac | aaacgtggcg | attgatccta | ccttagcctg | aaaatgctgt | caggaggcta | 120 |
| cgcaaccaga | tccgacacta | ctactgtcaa | caacggatcc | gctaattggc | caatagggaag | 180 |
| tgctccccc | agaattaact | cgatacaaaa | taataatcca | ggagctgtca | ggcctggctg | 240 |
| gggaaccatg | ccccttcaca | tgaatcctta | tcaccccaa | tcaatgcctc | ttccgcccc | 300 |
| caatggtatg | cagggtcagc | ttgtgtgcag | tggatgtaga | actcttcttg | tttatccgca | 360 |
| aggtgcacca | aatgtttgct | gtgcagtatg | caacacagtc | actc | | 404 |

<210> 1544
 <211> 339
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 1544 | | | | | | |
| tatgtctctg | catttcagcc | agtccatggt | ttcaagttag | ttagtccaat | aaagcagaga | 60 |
| tgggtcgtgc | tccatgctgc | acaaaagtgt | gtctcaacaa | gggagcatgg | tctgccgaag | 120 |
| aggatagtct | tctgggaaga | tatattcaaa | ctcatggtga | aggcaattgg | aggtctctgc | 180 |
| ccaagaaagc | agggctgcga | agatgtggaa | agagctgcag | attgcgttgg | ctaaactatc | 240 |
| ttcggccatg | tatcaagcgg | ggaaatatta | caacagatga | agaagaactt | attatcagaa | 300 |
| tgcattgctct | cttgggcaac | cgatgggtcga | taatagcag | | | 339 |

<210> 1545
 <211> 395
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1545 | | | | | | |
| ccgggtccggg | cggtggagag | catcagcctt | ggagttacag | accaggaaaa | tacaagatgg | 60 |
| gtagatctcc | ttgctgctcc | aaagaggggc | tcaaccgcgg | ggcctggacc | aaaagggagg | 120 |
| atatgattct | ctccgaatac | gttcgaattc | atggcgatgg | tggatggaga | aatcttccgg | 180 |
| aaaaagcagg | tcttaagaga | tgtggaaaga | gttgcagact | acgctggttg | aactatcttc | 240 |
| gtcccgatat | taaacgcgga | aacatttgcc | ccgccgagga | ggagcttatt | attcggctgc | 300 |
| atcgcttct | tggcaatcgg | tggtcactga | tagcaggacg | actgcctggt | cgaacagaca | 360 |
| acgaaatcaa | gaactactgg | aacactcatc | tgagc | | | 395 |

<210> 1546
 <211> 390
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1546 | | | | | | |
| gttctgtcaa | gacccagcaa | gaattttgtt | ccgggtttga | aggtgggaga | agtgaggtga | 60 |
| ttcctccttt | ggaagatgtg | gaagggtcca | caccacgat | tggggggagg | aagagaaaaa | 120 |
| atgtttacag | aggtatcaga | cagcgtccat | ggggaaaatg | ggctgcggag | attcgagatc | 180 |
| ccagtaaggg | ggttaggggt | tggcttgga | cgttcaacac | ggcagaggag | gccgccaagg | 240 |

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| cctatgatgc | agcgggctaaa | aggatccgag | gtaagaaaagc | taagctaaat | tttgctgata | 300 |
| actcgtgttc | tgttaaaaaat | gacactagca | agaaattgtc | aggaaaagaa | aggaaagtgtg | 360 |
| tgctcaaaac | accctgcttt | tgttgttaga | | | | 390 |

<210> 1547
 <211> 447
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1547 | | | | | | |
| agggtccccg | cgaaatgact | gaagaggagc | gggagacgaa | gaaggccgcc | agtgtggccg | 60 |
| ccacggctgc | cgaccaggag | ctcaggaaga | aagtgtctgcg | ggatctgcac | gcgctgatta | 120 |
| atcccaacgc | gactggagag | gcggatccgg | cggagtttcc | aggggatgat | gctactgtag | 180 |
| atggggaagt | cacggacgcc | gagtggtttt | acttgggtgc | catgatgaag | tcatttggaa | 240 |
| atggcttggg | ggtgccggga | caggcatttt | gcggtggcat | gcctatttgg | atcattgggt | 300 |
| cagaaaagct | tcagagctac | aactgtgagc | gggtcgtca | ggctcagcaa | ttcggcattc | 360 |
| aaaccatggt | atgtattcca | acacctaata | gagttgttga | ggtgggttcc | acggatttaa | 420 |
| atccgcagaa | ctgggatttg | atacaga | | | | 447 |

<210> 1548
 <211> 357
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1548 | | | | | | |
| cagaaatctt | gtgatccttg | tgattataat | caaaggctcag | ccttgcaagc | aaccgtgaag | 60 |
| ctgtgttcag | ttcagagctt | ctcttgccc | atggattcgg | agcttatgat | ggatgccatg | 120 |
| cggaaccttt | cgaataatgg | attcgcact | tcttccatgg | aaatgttagc | ggttatgccg | 180 |
| gatcagatta | ctgtcgaagc | accaccggat | tcgtcgacgt | tgctcgcggc | accacgcaat | 240 |
| ggccgattgg | caggggagcg | gcgggcaagg | ccgcatccga | gtcaagtgtc | caaatgccct | 300 |
| cgctgcgatt | cgctaaacac | aaagtctctg | tactacaaca | actacaatct | ctcgag | 357 |

<210> 1549
 <211> 395
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1549 | | | | | | |
| gagcactcaa | aatggggaag | acgaagatgg | agattaaacg | cattcaaaac | cctagccgcc | 60 |
| gccaggttac | tttctcgaaa | cgcaagaacg | gattgctaaa | aaaggcattc | gagctttctg | 120 |
| ttctctgcga | tgctgaagtc | gccctgatca | tttctcgga | aactggcaag | atctgcgagt | 180 |
| ttgcaagcca | cgacgacatg | gcaacaatac | tggaaaaata | tcgaatatac | acggaaacag | 240 |
| atggaaacat | ggagtcgtcg | tcggtccaaa | gcgtgaaggt | ttgactagaa | tgagaatttg | 300 |
| aagtttaacc | cctgcaaata | ttatattgaa | gggaaatcat | ggtccaaaat | caagtcgcga | 360 |
| cccaagttaa | agtgcaatgt | aatcacttta | gcttg | | | 395 |

<210> 1550
 <211> 634
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| <400> 1550 | | | | | | |
| gtccgctcga | ggtacgcaaa | gcacctacgc | agcggcattc | gaactctcta | cccatacgtc | 60 |
| agatttcaca | gtgaccttg | aatacaggta | agcgtaaagga | tgaattttga | caatggagga | 120 |
| tcacggaggg | gacgacgat | tcagagtgat | gtagtaggga | gacgcacatt | tcgtcgcagc | 180 |
| gagccttata | gactataccc | taatgatagg | aatggatatg | gtcccagggtc | ttccaggcct | 240 |
| attgagcttt | gtaacaactg | caagcgaaca | gggcactatg | cacgagagtg | tccaaatgct | 300 |

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| tctgtatgca | acaactgtgg | agtttcaggg | cacattgcat | cgaagtgtcc | aaaagagcaa | 360 |
| ttatgcagga | attgcaagaa | gcctggtcac | cttgcagctg | attgccgcaa | tgagcctgtc | 420 |
| tgtaacatgt | gtggtaaaac | aggtcacatg | gcaaaggaat | gttctgtctc | tgagctagga | 480 |
| cttccaaaat | cagcactctg | caagaagtgc | tatttgcctg | ggcatattat | ggcagactgt | 540 |
| cctaatagata | aggcctgcaa | taattgtcgc | cagactggcc | acttggctcg | agattgtatg | 600 |
| aatagcccgg | tttgcaatgg | ctgtggtgaa | cctg | | | 634 |

<210> 1551
 <211> 612
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 1551 | | | | | | |
| agaacatggc | caagcacact | gtctgcgcct | cttttctcaa | cgaaggagac | ttcatttgcc | 60 |
| ctccttacga | agatggaatt | ggctctagaat | ggctgtcgga | cttcgtggag | gattcctttg | 120 |
| cagctacagg | aagttcgaat | tctggttcct | tggtgactt | gtctaaggac | aaaatcgacg | 180 |
| acaacagggg | gaagaagaag | cagaacccaa | ccgatgaagc | gataatccct | gaaataccgc | 240 |
| ctataaaagga | gactcccagg | tcacagaggg | cggtgcccgg | gcggtgctgc | agcaagcggc | 300 |
| gcagaagctc | aggagcccca | attcgcggtt | ggctctactt | tgaagattac | gcattgcaga | 360 |
| atgagggcgg | catgaaaact | gtaacaggag | cggacgctat | aaatcattac | cagtcctcgg | 420 |
| cgccccagca | gcagccaagg | cgctgcactc | attgtctcag | ccagcgaacc | ccgcagtggc | 480 |
| gattgggccc | gttgggtccc | aagaccctgt | gcaatgcctg | cggtgtgagg | ttcaagtctg | 540 |
| gcaggctctt | ccccgaatac | aggcctgcca | agagccccac | tttcattcga | tacattcatt | 600 |
| caaattccca | ta | | | | | 612 |

<210> 1552
 <211> 562
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1552 | | | | | | |
| gtcatccata | ttttcttttt | cagtctgcaa | tacaaattgt | tattcgagat | acgattgatc | 60 |
| atgcttgaag | gctatgccta | tgcttgcgga | aacataccgt | gacagctttg | agacgacttc | 120 |
| gggaggtagc | agcgtggatc | tggtaggaat | ggctctacca | ggtttggccc | ctaatttgtc | 180 |
| ttctgcttca | gtttcagctt | cagcgtcgga | agattctgcc | aagaaaataa | ggaaacccta | 240 |
| taccatcacc | aagtccagag | agagctggtc | tgagcaagag | cacgataaat | ttctcgaagc | 300 |
| ccttcaacta | tttgatcgtg | attggaaaaa | gattgaagct | ttttaggat | caaagactgt | 360 |
| catacagatt | cggagtcag | cacaaaagta | cttcttgaag | gtccaaaaga | atggcacaag | 420 |
| agaacatgta | ccacctctc | gtccaaaacg | caaagcatct | catccatacc | cacagaaggc | 480 |
| ctcaaaaaat | gttcctgtgt | cacagcaagt | atcaactgct | tttccaactg | ctgctactca | 540 |
| actagattct | ggatattatc | ca | | | | 562 |

<210> 1553
 <211> 392
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1553 | | | | | | |
| caacaatggt | ccatattgag | acctactttt | gtccgcattg | cctccactcc | agaacgttgt | 60 |
| attttcttta | atgcattgag | cctcaatatc | ttctcttttg | attgcacagt | cgccaaaccc | 120 |
| atgcttctat | accttgagac | taatgcacga | gaaagagcaa | catctctctc | aaccgttggg | 180 |
| cgtggcctct | gacggtaata | acgaagaaat | tcacgagaac | caagcatctt | gcatgttgtt | 240 |
| ccattttcag | actttctttg | gattaccagt | tcagcccctc | caaagccaag | ttcaatatgt | 300 |
| acattgagat | tttcttctgt | gggcactatt | tgcatcccac | tttcatccgt | gtaactgctg | 360 |
| ctgtagtcat | aaaagtcggc | taaataccta | tc | | | 392 |

<210> 1554

<211> 570
<212> DNA
<213> Pinus radiata

<400> 1554

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| tcgtttctcaa | gcaccagga | gagcatggaa | aggcgagatc | agagtccggt | tgcagctcgc | 60 |
| caccccatga | gaaaacacta | cagaggagtt | cggcagaggc | aatggggcaa | atgggtagcc | 120 |
| gagattcgcc | tccctcagaa | tcgaacccgg | ctctggctcg | gcacctttga | caccgcagaa | 180 |
| gcagcagctc | tagcatatga | ccgagctgct | tacagatggc | ggggtgagtg | cgctcggctt | 240 |
| aattttcccc | atttgttctc | aaaaaagtat | cagaattcct | ctcccagctc | caccaatggc | 300 |
| aggattcctc | gcctttcttg | tgaaaaatct | gatcagaaat | atgcatataa | tggtgaccca | 360 |
| gttcatacga | atgtatataa | gggtccccc | attcggataa | ctgcatacaa | cggcgaccca | 420 |
| gttcctatag | atgtatatag | gagtgaccca | gttcgggtaa | gtgcatatac | tggtgaccca | 480 |
| gttcggataa | gtgcttatag | tggtgatcca | gttggcaata | ccgttacttt | agcggaatcc | 540 |
| gagcttgaaa | gctcctgcag | ccatgaatcc | | | | 570 |

<210> 1555
<211> 392
<212> DNA
<213> Pinus radiata

<400> 1555

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cttagcgacg | gttcccaatc | cctagtcctc | gcactttact | cgtctctctg | tgaagatgag | 60 |
| gagattgctc | tgtgagaagg | gtaatacaaa | caaaggggcg | tggacccaac | aagaagatgc | 120 |
| ccgactcatc | gcctacattc | gagcccacgg | cgaaggcggc | tggcattccc | ttcccagggc | 180 |
| cgcaggtctg | ctgcgatgtg | ggaagagttg | caggctgcga | tggataaatt | acctgcgtcc | 240 |
| taatctgaag | cgtggaaact | tctctgaaga | agaggacgat | ctcataatca | aactccacaa | 300 |
| cctcttgggc | gataagtggg | ctcttatcgc | gggtcgattg | ccgggccgga | tggaagacca | 360 |
| gataaagaac | tattgggata | cccactttaa | ga | | | 392 |

<210> 1556
<211> 364
<212> DNA
<213> Pinus radiata

<400> 1556

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ccttaccgag | gggaagcaac | gaggtgtttc | tcttttccca | caagaagata | tcaagcaaat | 60 |
| agttacacac | caagaaaatc | cacaatgggt | agatctcctt | gctgcgcaaa | ggaagggctc | 120 |
| aaccgcgggg | cctggacgaa | aacggaggat | attattctct | ccgaatacat | tcgaattcat | 180 |
| ggcgatgggt | ggtggagaag | tctcccaaaa | aaagcagggc | ttaagcgggt | tggaagaggt | 240 |
| tgtagattac | gttggttaaa | ctatcttcgt | cccgcatta | aacgcggaga | catttcccca | 300 |
| gctgaggagg | agctgattat | tcggctgcac | cgcttctctg | gtaatcgggt | gtcgtgata | 360 |
| gcag | | | | | | 364 |

<210> 1557
<211> 355
<212> DNA
<213> Pinus radiata

<400> 1557

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| ggagcaccca | aatggggaa | gacgaagatg | gagatgaaac | acattcaaaa | ccctagccgc | 60 |
| cgccaagtta | ctttctcgaa | acgcaagaac | ggattgctaa | aaaaggcatt | cgagctttct | 120 |
| gttctctgct | atgctgaagt | cgcccttctc | attttctcgg | aaactggcaa | gatcagcgag | 180 |
| tttgcaagcc | acaacgacat | ggcaacaata | ctggaaaaat | atcgcatata | cacgcaaaaca | 240 |
| gaaacagatg | gaaacatggg | ggcttcgctg | gtccaaagcg | tgaaggttgg | tgaatcacia | 300 |
| ttgaaagcgt | tgcacgagag | gatggacaat | ttgaaaaaaa | aggaacgaaa | catgg | 355 |

<210> 1558
 <211> 478
 <212> DNA
 <213> Pinus radiata

<400> 1558
 aaaaagctgt aaaacggtat atatagagcg ctctccagtc taacatcttg gattgattgt 60
 tttctgttag aaattcccat catccctctg tgtcttcctc cttttgaatc cagagactgt 120
 ttttatggtg gctgtaaagt ctgaaataat gcccaaattc gaagggaagt ctgcgaaatc 180
 cctggattca acattcaagc tgttcggcag aacgattgct gtgaaaaatc cctgtgatag 240
 cagcagcaat ggtattcatg tcatgaggat tccagctgaa gcagtgaatt cagcagtcctc 300
 caaggcttct gaaacgcac atcatgatga gaaacagaag cagaatgagg attcagaaaa 360
 ggtgggtaaa aagccacaa agcttgtgcc ctgccctcgc tgcgagagca tggataccaa 420
 attttgctat ttcaataact ataatgtcaa ccagcctcgg cattattgca ggagatgc 478

<210> 1559
 <211> 389
 <212> DNA
 <213> Pinus radiata

<400> 1559
 agaaggttg aatggcttag tccgctcatt tgatggcgaa cagatctttg tggggagggtt 60
 cagactttga ttatgagaac gaagccgata cgaggaaggg tccatggact gtggaagagg 120
 acatgcagct tggatttgta aatttgcacg gagaaggacg ctggaacttt ctgccagag 180
 catctggcct ccagagaact ggtaagagct gccggctaag gtgggttaac tatctccggc 240
 ctgatctcaa gcggagcaag atcactcctg aagaagaacg tttgattatt gaactccatc 300
 gccgttgggg aaataggtgg tctcgtattg cacaaagttt accgggaagg acggacaatg 360
 aaatcaagaa tttctggaga actcgtatg 389

<210> 1560
 <211> 354
 <212> DNA
 <213> Pinus radiata

<400> 1560
 agatgcctcg ggtagcagtt tacaagagcc tgaggagaat gatgaagaac ttgctcaagc 60
 tcttgaagca agtttgaaaa tgggttcaca gcaaaatcct cccagtcagc ctccatcata 120
 ctcttaccct agaggataca ggatctgtgc tgggtgcaat catgagatag gctatgggag 180
 gtttttaagt tgtatgggga ccttatggca tccagattgt ttttgttgtg ttgcatgtag 240
 tctaccata cgtgaacacg agttttccat gtcagggaaat gatccatacc acaaatcctg 300
 ttacaaggaa ctccaccatc caaatgtga cgtttgccac cagtttatcc ctac 354

<210> 1561
 <211> 248
 <212> DNA
 <213> Pinus radiata

<400> 1561
 gccaggtgag gcattggcag tcaattttgc attccagctg catcacatgc ctgatgagag 60
 tgtctctacc aggaacccca gggatcaact tttgagaatg gtaaaaggcc tgagtcctaa 120
 agttgtaaca gttgtggaaa gggaaatgaa cactaatact gctcctttcc tccctcggtt 180
 catggaggca ctgaattact actcagctgt gtttgaatcc ttggatgtta gcctcgaaag 240
 ggaaaacc 248

<210> 1562
 <211> 346
 <212> DNA

<213> Pinus radiata

<400> 1562

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tctgtaagtg | cttgagggct | tcttgtatcg | atgaggccat | taacgatggg | aagatctttt | 60 |
| agttgttgga | gctgttcaaa | agataatggc | cacgagcgtc | ttaatcgtgg | atcttggagt | 120 |
| gctgaggagg | atacaatttt | gagtgaacat | atcaaaactc | atggagtggg | tcgatggaca | 180 |
| tctcttccca | agaaagcagg | tctaaaacga | tctgggaaga | gttgcagatt | acgttgggtt | 240 |
| aactatcttc | gttcagatat | caagcatgga | aacatttctc | cggaagaaga | ggaactcctc | 300 |
| atcagattac | atcgtctcct | tggcaatcgt | tggtcgttga | tagcag | | 346 |

<210> 1563

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1563

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| gtttggggat | atatcagaat | gcaggacact | gctgcttcca | catctacaca | gcatacgtca | 60 |
| acaagtgaag | aatcttcaag | ttcagcagct | ccagcccat | ttagacaagc | caaagatgca | 120 |
| attgagagcg | atgatgatat | caggagggtt | cctgaaatgg | gaggaatgca | agcagggtcca | 180 |
| tctacatgtg | tgcctatgag | gttagacaat | ccccaaccta | gcacaggcgt | tggtgcccac | 240 |
| aggaagagag | ggagagcccc | tgcagacaag | gaacacaagc | gtctcaaaag | attgcttagg | 300 |
| aacagagtat | ctgccaaca | ggcaagagaa | agaaagaaag | catacttaaa | tgat | 354 |

<210> 1564

<211> 324

<212> DNA

<213> Pinus radiata

<400> 1564

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| tagctgccga | gtgtacgaat | gagaaggcat | gcaacaactg | tcgcaagacc | gggcatcttg | 60 |
| ctcgtgactg | caccaacaac | ccagtttgta | atttgtgcaa | tatatctggt | catgtggcca | 120 |
| gggagtgccc | caaggctcgc | attttggatg | gtaatagggg | tggaagattt | attgacgata | 180 |
| ggcgtggaag | atttaattgac | ataatctgta | ggacatgcaa | cgagccaggg | cataccagta | 240 |
| gggagtgcac | tggaattctc | atctgccaca | acttgtggtg | gccgtggaca | tggtgcatac | 300 |
| gaatgcccc | tctggctcgtg | tgat | | | | 324 |

<210> 1565

<211> 421

<212> DNA

<213> Pinus radiata

<400> 1565

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| aacggaaaca | ggaccggact | ctggctgctg | ccctccctca | ttaaccattc | ctgtctgccg | 60 |
| aactcgaggt | ggctgttagt | gggaaatgcc | atttttatac | atgcctccaa | ggccatcggg | 120 |
| agtggagaag | agatcactat | tccttatttt | gatgttctgg | ctcccttggt | acggcgccaa | 180 |
| gctgactgta | agaactgggg | tttcaagtgc | aagtgtgaaga | gatgcattct | ggagcactca | 240 |
| ttcaggaaat | tcctagaacc | tataattgcc | ctaaagtgtg | agcaattgga | tgaccaagca | 300 |
| aaagaattgc | ttgctggatt | ggatcatcgg | gaaagtgcag | aaatgagtca | ccgggaaaat | 360 |
| gcagaatttg | caatgtttgt | tccagaggca | gaggagatca | tccggagttc | ccatgtgttg | 420 |
| a | | | | | | 421 |

<210> 1566

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1566

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| cttaattccg | caacacaatg | cgttttcatt | ggagttgaga | ttttcagatc | ggcaattgcc | 60 |
| aagctcaacg | cccccaaatt | gtgattcgat | gtttccctcc | cactacacag | cgttggcatt | 120 |
| gcgtcgccaa | atgtggagaa | accccagaga | gtccggacag | agccattccc | agcctccaga | 180 |
| gaaagataga | ggaaaaactt | tcggccaatt | taaggggaatc | cgaatgcgaa | aatggggaaa | 240 |
| gtgggtgtcc | gaaattcgga | tgccgagatc | gaaggagagg | atctggctag | gatcctataa | 300 |
| aactgtcgag | caagccgccc | gtgcttacga | tgccgcactc | tattgcctca | gaggaccaa | 360 |
| cgccaaattc | aatttcccca | attccgtgcc | | | | 390 |

<210> 1567
 <211> 353
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|-------------|------------|-------------|------------|-----|
| <400> 1567 | | | | | | |
| gtctagggga | aaagctttga | aattatttgg | gtttgagttt | agaggggtcag | aaggtggatc | 60 |
| atltgaaggg | actaatgggt | ctgatcagcc | acaagatggg | actaatatat | taactgcagg | 120 |
| tgaagcatcc | actgagccag | tggaggaaga | actagtatt | gaggccaaaa | atggagattc | 180 |
| agggaaatta | gaagatgtgg | gtagtccagt | agaggctgga | gaaagtggta | gcactagcaa | 240 |
| ttgcctggga | tcattctgctc | aagaaaatcg | gaaatatgaa | tgccaatact | gttgcagaga | 300 |
| gtttgcaa | atcgcaggctc | tcggggggcca | tcaaaatgcg | cacaaaaaag | aga | 353 |

<210> 1568
 <211> 436
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|-----|
| <400> 1568 | | | | | | |
| agtattgaaa | ttccccctgtt | ttgatctgat | agctatggat | ctgatggagt | cttttgaggc | 60 |
| aaaggggaag | ggagagaaga | ggagaacggg | gaggggaaaa | accagttga | agaggattga | 120 |
| gaacgggacc | agcaggcagg | ttactttttg | taagcgcagg | aacgggtctgc | tgaagaaagc | 180 |
| ttacgagctc | tcgggtgcttt | gtgatgccga | agtggcactt | attgttttct | ctccaagagg | 240 |
| gaagcgctat | gagttcgcta | atcccagcat | gcagaaaaatg | ttggcacggg | acgaaaattt | 300 |
| ttcagaagga | agtaaagcaa | cgagtacagc | aaaagagcaa | gatgtccagg | gtttaaaacg | 360 |
| acaaattgcg | aatatggaag | aaaggggtga | aattcttgaa | tccatgcata | gaaagatgtt | 420 |
| gggggatagc | tgggcat | | | | | 436 |

<210> 1569
 <211> 349
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1569 | | | | | | |
| gttcaatttt | ttcacttgca | gtggaaatag | aagcctgcag | gtacctctag | gctaccggag | 60 |
| ttcaaattccc | gcacgatcac | actcccttct | tttaacattc | cgagttcgaa | tccccggaaa | 120 |
| cttctcgaca | tggttaagcc | ctcgcaaaaa | cagaatatcc | atgtcaatgg | caagccggaa | 180 |
| agccgctcac | tgatgtcgcg | gcaattcaag | ggaatccggc | taaggaaatg | gggaaaatgg | 240 |
| gtgtccgaaa | ttcgaatgcc | caattgcagg | gccaaaattt | ggctgggctc | ctacgaatcc | 300 |
| ccagagaaaag | ctgcccgcgc | ctatgacttt | gcagcgtatt | gtctgagag | | 349 |

<210> 1570
 <211> 580
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1570 | | | | | | |
| agagagagaa | cgtgggagaa | aacctgcaaa | tgcccgtaga | gaacctctga | atcatgttga | 60 |
| ggctgagcgg | caaaggcgtg | agaaattgaa | ccagaaattt | tatgagcttc | gtgccgtggt | 120 |

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| tcctaagtga | tcgaaaatgg | acaaaagcttc | tctgctcggc | gatgctgctg | cttatatcaa | 180 |
| agatctcttt | tccaaacagc | aggatttgga | gtccgagagg | gttgatatgc | aggttcaaat | 240 |
| tgacactata | aagaaggaat | tattgatgaa | ttctttgaag | ttggcagcta | aagaagcaaa | 300 |
| agatctttca | agcattgacc | ttaaagggtt | tagccagggg | aaattccccg | gcttgaattc | 360 |
| agaagttcgc | attgttggtc | gagaggcgat | aataagaatt | cagtgtacta | aacataatca | 420 |
| tcctgttgcg | agactgatga | tagcactgca | agaacttgat | ttggaagttc | tccatgcaag | 480 |
| tatttctact | gtgaaggatt | ccttaattat | ccagacagtc | attgttaaaa | tgaccagagg | 540 |
| tttgtagacg | gaagaccaac | ttcacgccct | gctttgtaag | | | 580 |

<210> 1571
 <211> 469
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1571 | | | | | | |
| gttgacggag | caggcagagc | gcattggctg | cgtcaagatt | ggcagcaacg | gtttgttgct | 60 |
| gttggcgagc | cggttaaagg | tggcagcatt | tgacctggaa | acacatggga | tttttttcag | 120 |
| agtggaaaga | gaagcagatg | atgagattat | cgttgaatct | gtagatgtta | accgggacag | 180 |
| ggttttggta | gcgtcaaagt | acggtaatgc | taggggttcg | cgaatgagga | cactcgaaaa | 240 |
| catatgcacc | ttaccgtttg | acgggttagg | cggagcagat | gataacagta | gcggtagtaa | 300 |
| taacaataac | aatagtagaa | aaattcttgg | gactttgaat | acatggctgg | catttgtctg | 360 |
| cattgacggg | gtgggtgcac | cttgggacgc | tgacagcggc | gcacgactct | accgtttggg | 420 |
| agaacaagtc | ggcgatgtgt | tcgatttggt | atcagacaat | gaacacgtg | | 469 |

<210> 1572
 <211> 337
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1572 | | | | | | |
| gggaggcaga | gaaggaacgg | aaaaaggagt | gaatttttgt | gggtttgtgt | ttattgggaa | 60 |
| gatgggggtg | gtgtcgtcca | agggtggaga | tgaagaatta | gtgaaaagat | gcagggacag | 120 |
| gaggaggcta | atgaagcagg | cagtgaattc | caggcacaat | tttgctgcag | cccacattgc | 180 |
| ttattttgag | gctctgcaaa | acacagggaa | tgctctggta | caatttgctg | aggggggaatc | 240 |
| cagtgtctat | aatggcaatg | ctattgaaga | agcggccaca | ccaatgccag | cgaccccatc | 300 |
| aacagcatct | catcgccatc | ccatgaaatt | ccatcct | | | 337 |

<210> 1573
 <211> 341
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1573 | | | | | | |
| gttctatact | gtcacgggtg | ttcttttaat | ggctcgttcc | tcctccctca | ccatggagaa | 60 |
| gaatatgtac | tgtagtctta | ctattctgga | gtatgacact | gaggaaggga | gtagttttaga | 120 |
| ttgggaatgc | gacatgtccg | aggaagaaga | agatcttata | atcagaatgt | acaaacttat | 180 |
| cggcaacaag | tggtcgtgta | ttgccggggc | cattcctgga | agaaaagcag | aggagattga | 240 |
| gaggtactgg | gccatgagaa | cccaacaatt | gtgcggcggc | gatgatgcta | ttttgacgaa | 300 |
| gaaacagcag | aaaaccaata | tgatatcgat | taagtaccgc | g | | 341 |

<210> 1574
 <211> 479
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <400> 1574 | | | | | | |
| catatcattc | atatgaatat | ggatagcagg | caatcagggg | aagaggaaga | ctgcaacgtc | 60 |

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| actcggccag | gaggaggagg | aggaatatca | ttacatgtta | gcagcgtgga | atattgccag | 120 |
| aagagtgcctt | gtgttgccca | tgatatctct | tctgatgaac | aagatctgat | aaatagactt | 180 |
| cacaatcttc | tgggcgacag | gtgggcactg | attgcggggc | gccttccatg | gagaagaaga | 240 |
| gaggagattg | agaattactg | taaaatgaga | tacacagcca | ctacctcttc | ttcacgctct | 300 |
| tgaatctccc | tttctctcgc | caggttatgg | agtgtggacc | aactatcgta | atcagatagt | 360 |
| ttgggttgat | tcagattggt | taggtttatc | tccacttgaa | aatatgtgtg | gatatttggt | 420 |
| tgtttgtttt | atcaaaacca | agtatagaag | aaataaaaatt | tgatcgtttt | atcgattta | 479 |

<210> 1575
 <211> 402
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1575 | | | | | | |
| attgatggga | tcacccttg | gaggaggact | tggtcttttc | cctagaatgg | gtggagggat | 60 |
| tgggaatggc | ctcaaggagg | attgggggtg | ggcttgccgg | gtctcgagc | tactgcgctt | 120 |
| accattggag | cagcatctcc | cgccaaccag | ctttcttctg | atgggtatgg | caacagccat | 180 |
| ggagacaact | caacagtatc | gccaattcct | tatgggttgg | acgtaagtgt | aagaggcagg | 240 |
| aaaagaggtg | gaccggtgga | gaaagtagtt | gaaagaaggc | agagacgtat | gataaagaat | 300 |
| agagaatcgg | cagcaaggtc | gcgagctaga | aaacaggcat | ataccggtg | aattggaagc | 360 |
| ttgaagttag | cagacctcaa | agaagagaac | aaggaattgc | ga | | 402 |

<210> 1576
 <211> 355
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1576 | | | | | | |
| cttcagccgc | ttggagtcca | cttcccagct | gctacatccg | ttgtcctcca | gcgcactgct | 60 |
| gccatcgtgg | gagaagccgt | cgctgctccg | cttgcgagcg | gcgtctaagc | tgctgatttc | 120 |
| gtcgtccagg | tggacaacga | tgcccttttc | ggggtcctcg | cagcgctccc | gtagcgtgga | 180 |
| gttccagtgg | ttcttgatcg | cggtgctcgg | gcggccgggg | agggctcggg | caattggtgc | 240 |
| ccatttggtg | ccgtgctgcg | cggtggccctg | cagaatagca | gcctcctcgg | acggggtaaa | 300 |
| aggctctgtg | tccacctgag | ggctcagctg | attgcaccac | cgtagcctgc | acgat | 355 |

<210> 1577
 <211> 463
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1577 | | | | | | |
| gtgaaacttg | agcaatttaa | cttgattctg | tggagactga | tgctgatgag | aaaattgagg | 60 |
| acaagggagg | aagcttgaaa | atgactcgcc | accagaaacg | caaaattgat | gaaatccacg | 120 |
| ttgaagaggg | tcagggtcat | gaggattttg | atcctgctag | ccttcgagag | catgaggagt | 180 |
| ttacgaaagt | taagaacata | gcaaaggtag | agcttgggag | gtatgagatt | gagacgtggt | 240 |
| acttttcacc | tttccctcct | gaatacagcc | attgtgagaa | gttattcttt | tgcgaaatttt | 300 |
| gtctcaattt | catgaagagg | aaagaacagc | ttcaaagaca | tatgaggaag | tgtgatctga | 360 |
| agcatccacc | tggagatgaa | atatatcgca | atggaaccct | ctccatgttt | gaggttgatg | 420 |
| gaaagaagaa | caagatatat | gggcagaacc | tctgctatct | ggc | | 463 |

<210> 1578
 <211> 343
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-----------|------------|----|
| <400> 1578 | | | | | | |
| gaaacaccaa | ggttgggatn | tctagaacga | agcatacgac | aacagcgcg | atttcaccac | 60 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttaggattga | tggagcagca | cccttggcga | ccgcagagag | gacttcctga | acgctctgtg | 120 |
| tctgttcttc | gtgcatggtt | gtttgagcat | tttctgcacc | cgtatccaac | tgatgcagat | 180 |
| aagcatatat | tggctaagca | aactggcctt | acaagaagtc | aggtatcaaa | ttggtttata | 240 |
| aatgccaggg | ttagactatg | gaagcccatg | gtggaggaga | tgtacatgga | agaactcaag | 300 |
| gaagaaaaag | tggaccaag | tacacacaat | tctgaagctg | aaa | | 343 |

<210> 1579
 <211> 530
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1579 | | | | | | |
| cggcaagtgg | ggagtgccgg | acaatttgta | tggagctcag | gaagacagtg | gtggaagtag | 60 |
| tggttaaagc | aagaacttga | aggatgggga | ccaattcacc | agtagtgatg | aagctgacag | 120 |
| tgaggtcaat | gaattcaaca | ttatgaaaag | aagcaattca | ggggttggat | atgaagataa | 180 |
| caaaagaagt | ggggggcaag | gtgatggcaa | tcagtacagg | tcacgtcact | ctcggagcat | 240 |
| ctccatggat | agcattatga | gtaagatgca | taacttcagt | gaagacttgg | aacaggaacc | 300 |
| gtctcaaggt | cggaaatgtca | gacactccca | tagcaattcg | atggatggaa | gtacaaattt | 360 |
| caatgtggaa | ttcgggaatg | gggaattcag | tgcatctgag | atgaagaaga | tcattggccag | 420 |
| tgagaaactg | gcagagcttg | caacggtgga | tccaaaacgt | gtcaaaaagg | atattggcta | 480 |
| atcgccagtc | ggctgcacgc | tccaaggaaa | gaaagatgcy | ctatatctca | | 530 |

<210> 1580
 <211> 561
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| <400> 1580 | | | | | | |
| ctccactaac | tcttctattt | caacactcac | agcatcggat | ccgtgcgata | aaacttctat | 60 |
| actggttcga | tctctcagcc | caacagccgt | aggccgaccg | ccattatcgt | cctctaagaa | 120 |
| agcttgcatc | catggaaaac | ctgacgatct | ctcaggaaaag | tgtaacacta | caggcggacg | 180 |
| ctgccattgc | tcttcaaaac | gcaagaagtc | cagagtgaag | agaactatca | gagtacctgc | 240 |
| agtcagtgc | aaattggcgg | acattccatc | tgatgaattc | tcattggcgaa | aatatggaca | 300 |
| gaagcccat | aagggtcttc | cacatccaag | aggctattac | aaatgcagca | cagtgcagag | 360 |
| ttgccctgca | agaaagcacg | tagaacgcgc | cctggacgat | ccaaacgtat | tgattgtaac | 420 |
| atatgagggc | gaacacagcc | attctcattc | tggtatctgaa | aacacaggcc | tggtactgga | 480 |
| ttcgtgagac | ccacatacag | acaaagacat | tattctagtt | ttatattacg | ctacagaatc | 540 |
| cgccattatt | acagcgggat | g | | | | 561 |

<210> 1581
 <211> 357
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1581 | | | | | | |
| cccagaacgg | cataagcact | gacaaaggat | tttaagatct | gtgcatgtg | ggatatggat | 60 |
| ttgccttccc | aagggtcaag | tttgagttca | tctggttcag | tttgactat | acaacagaac | 120 |
| aaaatttttg | aaaatgctct | agctgatttt | gataaagaca | ccccagataa | atgggagaaa | 180 |
| gtggcagcca | ggctgcctgg | aaaaactgct | acggatgtta | gaaagcatta | tgaagatctc | 240 |
| gtggaagatg | ttacttgtat | tgaagctgcc | gcgttgccct | accacgtac | agtaactctt | 300 |
| cctgttcaca | tgaatggtta | gaaaaatcag | gcgctatgca | cggattgaag | caacaat | 357 |

<210> 1582
 <211> 522
 <212> DNA
 <213> Pinus radiata

<400> 1582
gcgagctagg cggtagcgttaa gcaggagaga gattttatattt cttgtgttttc agagttttttg 60
cagtgcgctct aaatggcggg agaaaccatg cggatgtcga gggtagagact aggaagtgtgc 120
gaggacgaat cccggggccgt caaagaaacc catttcaggg gcgtgcgaaa acggccgtgg 180
gggagattcg cagcggaaat cagagatcca tggaagaaga ctcgagtgtg gctgggcaca 240
ttcgacactg ccgaggaagc cgcccgtgct tacgatactg ccgccaggag attgcgcggc 300
cacaaagcta agaccaattt ttctgtcacc gccgactacc acaataacgc tggtagcgccc 360
gcacttttct ggactcaggc gctgcatcct cagcagccgg atctgaacgc cgcggtctttt 420
gctttcgtat caaacaagag acgtgaagtt tcctctggaa gcgaccgggt cgagttcgaa 480
tctcccaaca atttctctca cgctgcacct ctgagcaggc gg 522

<210> 1583
<211> 530
<212> DNA
<213> Pinus radiata

<400> 1583
ggcaggagtt cccgcaagct ttaagaaccc ttccctttgt gtttagacctc caggtttcttc 60
aggtacgcag tctctacatc gcgtgacgtt caagggagac gggatattca gagtccgatc 120
gccgccatgg ccgtagacac catacagatg gcgagagtgg gtgtaaaaat gaagatcgga 180
ggaggcggtc gcgaggaaga ggcgtcctcg gctgtgaagg aaacgcattt cagaggagtg 240
aggaaaaggc cgtggggggag attcgtgcc gagatcagag atcccttgaa gaaaaccaga 300
gtctggctgg gcacttttga cactgcagag gaggccgcc gagcctacga taacgctgcc 360
agaaatctcc gcggggccaa ggcgaaaact aattttcttc tgtctcccca caatgacatt 420
agcaccaagg gcagcagcag cgccgccctg tcgagcaata gcaccaccag cgccgcctct 480
ggtcaaattcc aaaaccaatg gccctgctgg ccatatttct attcgaatca 530

<210> 1584
<211> 435
<212> DNA
<213> Pinus radiata

<400> 1584
gcattgctct gctcgaacac atagtagtct gatctctgctg cttcgagcac tacgagaatt 60
gcttcacat taccttcac atccaccaat ggcgggccgaa gatttttaatg acaagaatgc 120
tgtattcaga aagctccggg ccaaaccgga caacaagatg tgctttgact gtaatacaag 180
gaatcccaca tgggcatcgg tcacttacgg gattttcatc tgcctggatt gttctgcac 240
tcctcgtagt cttgggtgtc acattagctt tgctcagatct gtaaacctgg actcatggac 300
tcctgaacag ttgaaggtca tgagctttgg tggcaatggc cgaggacata cattctttaa 360
gcagcatggt tggaatgatg gaggtaaaat agaatcgaaa tacacatcaa gagcagctga 420
gctatataga cagct 435

<210> 1585
<211> 362
<212> DNA
<213> Pinus radiata

<400> 1585
gaaagacttg cagcttacat ggtggagggt cttgctgcac gaatagcatc ttcaggaaac 60
ggaatataca aagctttgaa ttgtaaagcg ccaccaagca ctgatacttt atctgccatg 120
caaataattt ttgaagtttg cccatatttc aaatttggtt gcattggtgg caatgggtgca 180
atttgatgaag ccttcaagga tgagcagaag gttcatatac tagattttga aattgggcag 240
ggaagtcatg acataagcct cttaaagtgc cttgcagaaa ggcctgggtg gcctccacat 300
ttgcgcataa ctgcagtaga tgattctgaa gatgtaagat atattcctgg gggattggat 360
aa 362

<210> 1586

<211> 362
<212> DNA
<213> Pinus radiata

<400> 1586
caggagccga aaagacaaac tacgaacaaa atccctgtcc aaataacaag aaaaatggca 60
gagtcacagg ggctcgtctac acattacaaa ccgtacaggc agaagcagac tctctcaggc 120
caccgtggag cggctctcgtg cgtgaaattc tcaaaggacg ggctctcctt gggcagcgct 180
tctctggaca aaacaatatg catatggctg gcctctgctt cttcttctac ctctgcattc 240
aagcgggagc tccacggcca cagcgagggc gtctccgact tcgctgggtc gtccgactcc 300
cgctatatct gctcggcttc tgacgacaag agcctccgca tctgggacgt ccacacgggc 360
ga 362

<210> 1587
<211> 389
<212> DNA
<213> Pinus radiata

<400> 1587
cttcgggtctg cctgggtgctg tttctgaatt tctcgccaag tgagtgagtc gatccagcct 60
tgtttcagcg aaacctgttg tggttttggg ttttcttggc ttttgccctt tcattctttg 120
tttccttgga ttcgaactcg agatctcctg aatattatgg cacaggagag ctggaaccag 180
gaggagaccg ggtgccaagt cccggaaggc ctcatgctgt gtgccaacaa ctgtggcttc 240
ttcgggaagtc cggccaccat gactctctgc tccaagtgtt accgcaatt cgtgctgctc 300
aactccccta aatcgtcctt cgataagccg caacagcagc tgccgatgca ggacgaggta 360
tctatcccga gaccgacgt tgctgctga 389

<210> 1588
<211> 416
<212> DNA
<213> Pinus radiata

<400> 1588
cagcaatggc ggcccagact atcatcgtg cctctatggc atctcctcta acattatcaa 60
atggccacta tccgtttttag tccgagttca aggggtccgt ggttcgaatc ccgcagaggc 120
cattttcctt cgcgcctgca gccggggcgc tgaccgtcgt cgcataggcc aagaaggccg 180
ttgccgcgtc caaagggaaat tcacaggtcg aggggtgtgt cagtctctcg caggaagaca 240
gggggtccac aacagtgaag gtccgtttga caggactgac tcctgggaag catggctttc 300
atctacatga gtttggtgac acaaccaatg gctgcatatc aacaggagca cattttaatc 360
caaaaaaatt gacacatggt gctcctgagg atgatgtac ccatgcgggt gacctg 416

<210> 1589
<211> 507
<212> DNA
<213> Pinus radiata

<400> 1589
tgcgagtcaa tgttctaagt atcccatattg tcacacatgc ggcaaattctg gtcacctctc 60
cagggattgt acggctccag agcttcccc tggagacatt aggttttgca acaattgtta 120
caaacaagga catatagctg ccgagtgtag gaatgagaag gcatgcaaca actgtcgcaa 180
gaccgggcat cttgctcgtg actgcaccaa caaccagtt tgtaatttgt gcaatatatc 240
tggtcatgtg gccagggagt gcccgaaggc tcgcattttg gatggtaata ggggtggaag 300
atattattgac gataggcgtg gaagatttaa tgacataatc tgtaggacat gcaacgagcc 360
agggcatacc agtagggagt gcaactggaat tctcatctgc cacaactgtg gtggccgtgg 420
acatgttgca tacgaatgcc cctctggctg tgtgatgctg cgggacatgc gcaggcattg 480
atgctgcagt ttctacacca cctgact 507

<210> 1590
 <211> 370
 <212> DNA
 <213> Pinus radiata

<400> 1590
 cgatatttta tggtgttgaa gttggcaaaa ggagcattgg tcttaaaagg tcaaccctgt 60
 aaggtcctga tcaacccttt gacaagataa aaatggacag aaattcagaa ttttatgaag 120
 agacatcgtc acagaaaaat caggcatccg gatcaagtga tggaggtagt tttgattgca 180
 atatttgctt agaattagcc caagatcctg tgggtgactca atgtgggtcat cttttttgtt 240
 ggccttgccct ataccaatgg ctacagatgc actccatcctc aaaagaatgc cctgtttgca 300
 agggcggtgt agttgaagag aaggtaattc ctttatatgg gaggggtaag gtgggttctg 360
 ctgatccaag 370

<210> 1591
 <211> 308
 <212> DNA
 <213> Pinus radiata

<400> 1591
 gttcccagga gaggagagcc tcagctgtct cgatctggcg ttaaggggtt acagaagaag 60
 aatttcgaag atgggttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120
 gaccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180
 gaaaaatatc gctaaacgag caggctcttaa acgatgtgga aagagttgca gattacgttg 240
 gttgaactat cttcgccccg acattaaacg tggtaacatt tctcctgatg aggaggacct 300
 cattatta 308

<210> 1592
 <211> 361
 <212> DNA
 <213> Pinus radiata

<400> 1592
 ggatattctg gtgtgcattg ctattctggc catgaatttt ggcagaatgt gcgattaggg 60
 tttgattctg ggtgttcttt tcaggtagag cagagatttg aaggggattt gaatttgaat 120
 catggaagt ggtgtctgca gccctcggtc ttccgctcag ggggtgtgagg ttgacatgaa 180
 gccaacgatg gtgggtggaag atacgcttaa tcaaggatgc atgcaatatg gatgttcaca 240
 ctaccgccgg agatgccaaa taagggtctc gtgttgtaat gaagtctttg actgtaggca 300
 ttgtcataat gaggccaaaa attcaatgga tgtccatcca cttgacagac atgatgtacc 360
 g 361

<210> 1593
 <211> 378
 <212> DNA
 <213> Pinus radiata

<400> 1593
 accaagctca tcacatggcg tccgagaagg aagctgctct tgctgccaca ccaccagaag 60
 atgataaacc tacaatatatt gacaaaatac tgcagaagga gattcccagt acagtgggtt 120
 acgaggatga gaaggtactt gcattcaggg atatcgacac ccaagcacct actcacatca 180
 ttatcatccc caaagtaagg gatggcttga ctggcctatc tnaggcagaa gagaggcatg 240
 aggatattct aggtcacctg ctatacactg caaaagtatt tgcaaagcag gaaggtttat 300
 ctgatggctt cagaattgtc attaacgatg gtcctactgg atgccaatct gtgtaccatt 360
 tacatattca tctactcg 378

<210> 1594
 <211> 333

<212> DNA
<213> Pinus radiata

<400> 1594
gattgacgga tcgattgcaa tggcgtttgc ggaagagtat tccgatcgcg atgccgtatt 60
tcgaaagctg aaggcgaaagt ctgaaaacaa gatttgtttt gattgcaatg ctaaaagtcc 120
cagttgggcg tccgtgacat atggagtatt catttgctctt gattgttcag caatgcatcg 180
gagttcttggg gttcatgtca gttttgtgag gtctacaaat ctcgatacat ggaccatgga 240
gcagttgaaa ttgatgagct ttgggtggtaa tggccgtgca caattattct ttaagcaaca 300
tggttggaact gaaggtggga agattgaatc aaa 333

<210> 1595
<211> 356
<212> DNA
<213> Pinus radiata

<400> 1595
ccttaacggt gtctatgtgt tgatatatat cacaagtgcc gtctatcgcc tccttcgggtt 60
cctgggggttc cgagagtttg tggaaacccga gacctcctgg ccagatgaaa tcaaccacg 120
gttgaagccc gtgacatttt ccgtatctgc gcagaggatt cgtgagcgat taccagtagt 180
tcggttcggc gttttagcgg aggaggccgg tgatgaggat gttatgtgcg ctgtttgctt 240
aaataacatg cagaggcatg aggagatccg aaggctaacg aattgccgtc acatcttcca 300
cagagactgt atggacaaat gggttgatca tgaccagaac gcctgtcctc tctgca 356

<210> 1596
<211> 378
<212> DNA
<213> Pinus radiata

<400> 1596
gtcaacgaga attgccacga tgggttaatg tggatttagg tctgggaagc tttaggataa 60
gttaatgtac cgaagtgtgg ttaatttttag taaagaggat tgtgttttat catgcggatc 120
cagtgcgatg cctgcgagca ggcagctgct tcagtgatat gttgtgcaga cnaggctgct 180
ttgtgcaggg agtgtgatat aaaagtccac aaggccaaca agcttgccag caaacacaag 240
agattgcctc ttgtcggaac ttccccaaag ctctctcgct gcgacatttg ccaggatagg 300
gcagccatcg ttttctgtct cgaagatcgt gctatgctgt gccaaagactg cgatgagtcc 360
gttcattctc gcgacaca 378

<210> 1597
<211> 387
<212> DNA
<213> Pinus radiata

<400> 1597
tcgataatag cagggagagt ccccggccga acagacaacg aaataaagaa ctactggaac 60
actaacttga gcaagaaact tgctgtcagg ggaatcgatc ccaagactca taaaaaatc 120
acgacggacg gcacgaacag agtcaacggg gatcgtttca gccagaggaa aggtgagaaa 180
atatatgatt ctccacagaa acctcgacag ccggaaagaa atgttgcgag ggccgcccga 240
tcaacagggc tcgtgattcc taatgttcac aatctaaaag cggattttaa agcgcaatat 300
attgcaagaa tcagagaatt taaaagctct aatactatca gctcctcttc tcgacttaat 360
gcacagattg agccaaagtc cagagag 387

<210> 1598
<211> 276
<212> DNA
<213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| ctagtcaggc | cttccagtc | gacaatgatc | caaataatac | aactatattt | gttgggtgggt | 240 |
| tagatccaaa | tgcgacagat | gaagatctga | ggcaggtttt | tgggccatat | ggagagattg | 300 |
| tgtatgtgaa | aataccagtg | ggcaaaggat | gtgggtttgt | acaattcacc | aacaggtcct | 360 |
| ctgccgagga | agctttgcaa | agttacacgg | cactgttatt | ggtcaacaat | ctattcgcct | 420 |
| ttcttggggg | cgatctccag | caaacaagca | gactgcaagc | tg | | 462 |

<210> 1603
 <211> 358
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1603 | | | | | | |
| cagcgaagcc | gatttccaaa | gatggatagg | gagaaactca | tgaagatggc | tgggtgcagtc | 60 |
| cgactggcg | gaaagggtac | aatgcgaagg | aaaaagaaga | caattcataa | gactgccacg | 120 |
| gcagatgaca | agagacttca | aagtaccttg | aaaagaatag | gcgtgaataa | catccctgct | 180 |
| attgaagaag | tcaatatttt | taaggatgac | catgttattc | attttgctaa | cccaaaggct | 240 |
| caggcttcta | ttgctgccaa | cacatgggtg | gttagtgggt | catcgcaaac | aaaaaaactt | 300 |
| caagatcttt | tccctgggtat | catcaatcag | cttggaccag | agagttttgc | caatctga | 358 |

<210> 1604
 <211> 358
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1604 | | | | | | |
| accaagctca | tcacatggcg | tccgagaagg | aagctgctct | tgctgccaca | ccaccagaag | 60 |
| atgataaacc | tacaatattt | gacaaaatac | tgcagaagga | gattcccagt | acagtgggtt | 120 |
| acgaggatga | gaagggtact | gcattcaggg | atatcgacac | ccaagcacct | actcacatca | 180 |
| ttatcatccc | caaagtaagg | gatggcttga | ctggcctatc | taaggcagaa | gagaggcatg | 240 |
| aggatattct | aggtcacctg | ctatacactg | caaaagttat | tgcaaagcag | gaaggtttat | 300 |
| ctgatggctt | cagaattgtc | attaacgatg | gtcctactgg | atgccaatct | gtgtacca | 358 |

<210> 1605
 <211> 461
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-----|
| <400> 1605 | | | | | | |
| gcggacttta | ttgtaaaaaga | gccaatgggtg | attgggtcatg | agtctgctgg | aataattgag | 60 |
| gaggttggca | gtgaagtga | acatctgggt | cctggtgacc | gcgtagcttt | ggagcctgga | 120 |
| atatcgtgtt | ggcgttgtga | ccaatgtaag | cgaggctcct | acaattttgtg | tcccagagatg | 180 |
| aagttttttg | caacacctcc | cgtgcatgggt | tccttggcca | atcagattgt | tcatcctgca | 240 |
| gattttatgtt | tcaagttgcc | agataatgta | agtctcgagg | aagggtgcat | gtgtgaacca | 300 |
| ctcagtgttg | gggttcattg | ttgtcgccgt | gcttctgtag | gtcctgagac | aaatgtcttg | 360 |
| gtaatggggc | aggtcctatc | ggccttgtca | ccgtgctgtc | tgacagtgca | tttgagagctt | 420 |
| cacgaattat | tattgctgat | gtagatgaag | agcgtctgtc | a | | 461 |

<210> 1606
 <211> 463
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1606 | | | | | | |
| gccactgttt | gtatgtgatc | tccgggcctt | gagcttatac | gtttttcagt | tgcagggttg | 60 |
| gagcctgtca | aattatactt | accatgattt | ggaaagaagc | tgcgacagtg | ctacacaagg | 120 |
| cccaacatct | ggagaagcca | cccttcatct | ttactgtatt | tatcgcatct | tttataggat | 180 |
| tcgcccctt | ctcgtatctc | atcactaacc | gtagaactag | ggaattacga | ggaatcccgc | 240 |

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| ccggcacctt | tggatggcct | ttgatcggcg | agacattaga | atttctggga | tgccagagaa | 300 |
| ggggaaggcc | ccaggatttc | tgtgaccgtc | gaacacagaa | gtatggaaac | gtgttcacca | 360 |
| cttcccttgt | gggcacccga | cagtgggtatt | atgtagtccc | caaggcaacc | gcttcttgtt | 420 |
| cgccaacgag | aacaaaactgg | tggtaaattc | atggcccgc | tct | | 463 |

<210> 1607

<211> 410

<212> DNA

<213> Pinus radiata

<400> 1607

| | | | | | | |
|------------|-------------|-------------|------------|-------------|------------|-----|
| tcctgacttt | gctaattgaga | cattcggccc | aagcttagtc | gttgttatcg | ctgccctgtt | 60 |
| cctctcaatg | ctatgctttt | tgttggtcaa | tgccctgctc | cgctgcagac | ggctctacag | 120 |
| gcgatggcga | gtggtgtcgg | agccatcacc | caatatggat | gtcgaaagaa | ctgaatctgg | 180 |
| catcgagaaa | aaggatttag | aagcactttc | agccacagtt | taccgcaaag | cccacccctt | 240 |
| cagagccatg | gattgcccc | tttgccctggc | ggaattcaaa | gaaggagaaa | aggtgagagt | 300 |
| attaccagaa | tgctgtcact | gtttccatgc | agattgcata | gacgcattggc | tgctttccaa | 360 |
| tgcttcttgt | ccttcattgc | gacacactgt | cctttgcgca | ttgccgaaga | | 410 |

<210> 1608

<211> 357

<212> DNA

<213> Pinus radiata

<400> 1608

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| taataattgg | gtactgtgga | gattttcctg | tgcattgacc | attacaatgg | ctgagacagt | 60 |
| ggttttgaag | gttggcatgt | cttgcggaag | ttgtgttgga | gctgtaaaac | gagttctcaa | 120 |
| taaaatggaa | ggtgtggaaa | catatgatgt | gaacttgaag | gagcaaaaag | taactgtgaa | 180 |
| agggaacgtg | aagcctgatg | ccgttctgca | aactgtttca | aaaactggaa | aggaaacatc | 240 |
| cttctggcca | gaagagaagg | atgccaccac | gtgatgggtg | atattctcag | gtttaatata | 300 |
| gatatggaca | tatattgaac | atgctttttt | gaggcacttt | taataatatt | tctaata | 357 |

<210> 1609

<211> 222

<212> DNA

<213> Pinus radiata

<400> 1609

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| ccaagaacgc | gggaaggaag | aggatgaatt | tgtacagagg | catcagacag | cgtccatggg | 60 |
| gaaaatgggc | tgcgagagatt | cgagatccca | gaaagggggt | tagggtttgg | cttggaacgt | 120 |
| ttaacacggc | cggaggaagc | tgccagggcc | tatgacgcag | aggcttagaa | gattagagga | 180 |
| aagaaagcta | agcttaactt | taccgatgat | tcattgctcag | ta | | 222 |

<210> 1610

<211> 302

<212> DNA

<213> Pinus radiata

<400> 1610

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| gttcagccta | tggttgtctg | ctaaatcgct | tccacaaatg | tcgatccatc | tgagagagacc | 60 |
| tcttataact | gaaatacaag | tgcgtatgga | ctgtaatggc | tgcgttcaga | agatacgcag | 120 |
| agctctgcaa | actcttcaag | gcatttatga | cgtttacata | natttcccc | aacaaaaggt | 180 |
| gacagtggta | ggatgggttg | atccagacct | attaatgaag | gccataaaga | aagccgggaa | 240 |
| aagagccaaa | ctgtgcagcc | acgtacgcga | tgaagaaacg | gtcgagagag | ccgacccggc | 300 |
| gg | | | | | | 302 |

<210> 1611

<211> 268
<212> DNA
<213> Pinus radiata

<400> 1611
gaatgaagtt agatacggca aagaaaggcc ttcctccagg caccatggga tggcctctct 60
ttggagaaac tcctgatttt ctcagatatg gtcaacaatt tatcaaaaac agaaaggcca 120
gatatggaga tttgttcaag actcacattc taggatgccc gacggtgata tcgacggatc 180
cagctctcaa cagatatatc ttattgaatg aaggccgagg actaattcct ggatacccg 240
agtctatgct tgacacattg ggaaaatg 268

<210> 1612
<211> 312
<212> DNA
<213> Pinus radiata

<400> 1612
gctcactgga ataaacactc ttcgcatcca gcccttcaaa cttccctctt tggcccccatt 60
gatgcgaagg tgcgcatgaa ggctgtgggt atctgtggca gtgacgtcca ctatttgagg 120
acattacggg gtgcggactt tattgtaaaa gagccaatgg tgattggtca tgagtctgct 180
ggaataattg aggaggttgg cagtgaagtg aaacatctgg ttcctggtga ccgcgtagct 240
ttggagcctg gaatatcgtg ttggcgttgt gaccaatgta agcgaggctc ctacaatttg 300
tgtcccagga tg 312

<210> 1613
<211> 324
<212> DNA
<213> Pinus radiata

<400> 1613
gctggctaca gcttatgcct tccgattcgt ggggtgaatgg atgaaatggc tatacttgga 60
tgtaacaaaa cgtttgggag caaaggattt ctcaacattg gctgaagcac atgcatgtac 120
tgctgggtta aagtcattga caacatcagt gactgcggtt ggcatggaag attgtcgtaa 180
gctttgtggg ggacatgggt acttgtgcag tagtgggctt ccagagctgt ttgctgtata 240
tgttcctgcg tgcacatatg aaggagataa cacagttctg cttctacagg tagcaagatt 300
cttgatgaag acagtccaac aact 324

<210> 1614
<211> 395
<212> DNA
<213> Pinus radiata

<400> 1614
gttcccagga gaggagagcc tcagctgtct cgatctggcg ttaaggggtt acngaagaag 60
aatttcgaag atgggttagat cttcttgcta ttcaaagcaa ggtcataggc gtgggatttg 120
gaccctatg gaggatatga ttctctctga atacattcga attcatggca gtgatggatg 180
gaaaaatatc gctaaacgag caggtcttaa acgatgtgga aagagttgca gattaccgtt 240
ggttgaacta tcttcgcccc gacattaaac gtggtaacat ttctcctgat gaggaggacc 300
tcattattag gttgcatggc cttcttgcca atcgaggac gactaccggg tcgaacagac 360
aacgaaatca agaattactg gcacactcat atgag 395

<210> 1615
<211> 231
<212> DNA
<213> Pinus radiata

<400> 1615

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttacattcaa | ccaagctcat | cacatggcgt | ccganaagga | agctgctctt | gctgccacac | 60 |
| caccagaaga | tgataaacct | acaatatctt | acnaaatact | gcngaaagag | attcccaatn | 120 |
| cagnggttta | caaggatgag | aaggtacttn | cnttcagggg | tatngcnccc | caagcaccta | 180 |
| ctcacatcat | tatcatcccc | aaagtaaggg | atggcttgac | tggcctatct | a | 231 |

<210> 1616
 <211> 396
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1616 | | | | | | |
| ccggtccggg | cgggtggagag | catcagcctt | ggagttacag | accaggaaaa | tacaagatgg | 60 |
| gtagatctcc | ttgctgctcc | aaagaggggc | tcaaccgcgg | ggcctggacc | aaaagggagg | 120 |
| atatgattct | ctccgaatac | gttcgaattc | atggcgatgg | tggatggaga | aatcttccgg | 180 |
| aaaaagcagg | tcttaagaga | tgtggaaaag | gttgcagact | acgctgggtt | aactatcttc | 240 |
| gtcccgatat | taaacgcgga | aacatttgcc | ccgccgagga | ggagcttatt | attcggctgc | 300 |
| atcgcttctt | tggcaatcgg | tggctactga | tagcaggacg | actgcctggg | cgaacagaca | 360 |
| acgaaatcaa | gaactactgg | aactctcatc | ttgagc | | | 396 |

<210> 1617
 <211> 296
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1617 | | | | | | |
| gtcggcgctg | gcggcggtcg | cgaggaaacg | gcggcgctcag | ctgtgaagga | aacgcatttc | 60 |
| anaggcggtg | ggaagaggcc | gtgggggaga | ttcgctgcgg | aatcagaga | tccctggaag | 120 |
| aagacgagac | tctggctcgg | cacttttgac | acagccgaag | aggccgcccg | cgcctatgat | 180 |
| aatgccgcca | gaaatctacg | cggccccaa | gccaaaacca | atttcgctat | ccacgacgat | 240 |
| agcgcgccgc | ctgttcaaca | gtggcgggcg | acgcgccgtc | cctagtcagc | gacaag | 296 |

<210> 1618
 <211> 381
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1618 | | | | | | |
| gagctttctc | tcaagaacat | tcttacagca | aatgagcaga | ctacaactgc | agaaccacga | 60 |
| aataataata | cagttgtttt | cctggaatct | attactaatc | catctgtcag | agttgcggat | 120 |
| ttaccgtcta | tttccactgt | atgtaaaaag | tatggagcat | ttcttatagt | agataatata | 180 |
| tttgctacac | cgataaggat | caagcccatc | aagcaggggtg | ctgacatggg | cattcattca | 240 |
| gtaacgaaat | ttcttggtgg | ccatagtgat | ctggttgtag | gagtagttgc | aggctcttct | 300 |
| caccacatag | agtttagctc | aaagctggta | ggctcgctggg | ggctgcttgc | tgctccattc | 360 |
| gattcatggc | ttgccactcg | c | | | | 381 |

<210> 1619
 <211> 373
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 1619 | | | | | | |
| cgggtccatgt | gacttcgaca | tccatgagtc | ctgcgcccaa | gctcctaacg | ccactctcca | 60 |
| ttcctgtcat | ccccagcatc | ctctcgtgtt | gagggacaaa | ccagtttcac | cacaacgcgt | 120 |
| atgcgacgtc | tgtggaaggg | atgttttagg | attcgtttat | gactgccgtg | aatgtgacgt | 180 |
| ggacgttcat | ccctcctgtg | cacagctgcc | gcagacgctg | cgccacgctc | tgcattccaca | 240 |
| ccacaccctt | caactctccc | atggacctga | agctcccgcc | cctcctgcac | gctcctgtaa | 300 |
| cgtatgcgga | gaagcctgta | gccctgggca | ctggagctat | cgttgcgaa | tagccagtgc | 360 |

gccgtgtgat ttc

373

<210> 1620

<211> 137

<212> DNA

<213> Pinus radiata

<400> 1620

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cacgggttcc | agaccttttg | catcttcatt | attcttccgc | ctgtgaaaag | atggggagat | 60 |
| ctccgtgctg | tgagaaggct | catactaaca | aaggggcctg | gactaaacaa | gaagatgacc | 120 |
| gccttatcgc | tcacatt | | | | | 137 |

<210> 1621

<211> 372

<212> DNA

<213> Pinus radiata

<400> 1621

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| gttcccagga | gaggagagcc | tcagctgtct | cgatctggcg | ttaaggggtt | acagaagaag | 60 |
| aatttcgaag | atgggttagat | cttcttgcta | ttcaaagcaa | ggcatagggc | gtgggatttg | 120 |
| gaccctatg | gaggatatga | ttctctctga | atacattcga | attcatggca | gtgatggatg | 180 |
| gaaaaatatc | gctaaacgag | caggtcttaa | acgatgtgga | aagagttgca | gattacgttg | 240 |
| gttgaactat | cttcgccccg | acattaaacg | tggtaacatt | tctcctgatg | aggaggacct | 300 |
| cattattagg | ttgcatggcc | ttcttggtcaa | tcgcaggacg | actaccgggt | cgaacagaca | 360 |
| acgaaatcaa | ag | | | | | 372 |

<210> 1622

<211> 464

<212> DNA

<213> Pinus radiata

<400> 1622

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| ctgaattgca | tttcttagtc | ggcaaaaata | ttaaagagtc | aagacaaaga | gggggttacg | 60 |
| ggagcaggct | gcgggttcga | tcccaagata | aggaaaaaag | aaagaaaatt | tcatgaattg | 120 |
| ggcctgtaga | ttccagtcac | gaaattaaaa | cctatcggtc | tcgtcttcga | gctaaagttg | 180 |
| gggaaaaagc | taagctctca | gggaatgggt | tcccgacaaa | tgctgtcctc | taatgggtggc | 240 |
| cggacacctc | agttccaacc | actcgttcgt | cagaattctt | tatacaattt | aacgctggag | 300 |
| gaggtccaga | accagctcgg | ggacgccagc | aagccactta | gcagcatgaa | catggacgag | 360 |
| ctcctgaaga | acatttgagc | acaagagaaa | gccaggctat | atccatggcg | atcggcaatg | 420 |
| ggcccatgaa | cggtgttcct | cccaactctg | cccctgccag | cggt | | 464 |

<210> 1623

<211> 436

<212> DNA

<213> Pinus radiata

<400> 1623

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| aagaaaaatg | ggctgaatag | tctcagggag | ggtttttaaat | tgaatgagta | ggttttttctg | 60 |
| gggtgagatt | ctttcatatt | tatgcgtaaa | acgttgactc | caatcggcgt | gaaacaaacc | 120 |
| aatagaaatc | ccaaattgat | ttctttcaat | ttcatctgat | acacagagag | aattcagtc | 180 |
| gtggaagtca | tgtctaacat | aacgtctgcc | tctggagagg | ccagcgtttc | ttctggcaat | 240 |
| acagctgcc | tggtgatag | tgagagcatt | cggcaacagc | caccacaaca | attctcaaca | 300 |
| ccaacgtctg | caaattggcg | cggaaatata | aacagtgtct | agcaaaaccc | agagaagaag | 360 |
| agaaagagaa | atcttccagg | aactccagac | ccagatgcag | aagtgattgc | tctgtcgcct | 420 |
| aggactctca | tggcta | | | | | 436 |

<210> 1624

<211> 337
 <212> DNA
 <213> Pinus radiata

<400> 1624
 gccagagctg tggctgttcc cagaagagga tatcatcagc tgtccagttt gtcctaagag 60
 actacagaag aagaatatag aagatgggta gatccccctg ccccccaaaa gaagcgctta 120
 accgtggggc ttggacaggc atggaggata cgattctcac cgagtacatt cgagttcatg 180
 gcagtgggtg ctggaaagat atctccaaaa gagcaggtct taagaggtgt gcaaagagtt 240
 gcagattgcg ttggctgaac tatcttcgtc ccgatattaa acgtggtaac atttctcccg 300
 aggaagaaga gctcattatt cggttgcac gccttct 337

<210> 1625
 <211> 421
 <212> DNA
 <213> Pinus radiata

<400> 1625
 ctgaagtgcc gtcgattgtt cgggaggata gcgttttctga agttcgttgt tgagttatct 60
 cgcgagactg tagaatttta ggggtgtttt ccacaaaccg acttttcccg acttcaaactc 120
 ttgatattga agtgacatgg ccggcgagaa aagaaagatt aatagaatag ctaacgcttc 180
 ggccaggcag gtcaccttcg cgaagaggcg gagggggctg ttcaaaaaag ctgaggagct 240
 atcgatttta tgcgaagccg atgtagccct cctcgttttt tcttcaactg gaaagctgta 300
 ccagtactcc agctccagca tgaaaatgat attggaccag tatattttgt attctagatc 360
 aattcaaaaag gatggaaagc caaatctgga ggagagtcac gatatccaaa agataaacca 420
 c 421

<210> 1626
 <211> 315
 <212> DNA
 <213> Pinus radiata

<400> 1626
 tgcatttcag ccagtccatg gtttcaagggt cgaatctcct tgctgacatg aatccatcaa 60
 tatatataga gagagagaaa tatacgtttt tcagatttaa gcatggccgt ttaataatct 120
 gcattgcatg gcgagattgt atttgtgtta gaagttgatt ttctgttttt tctctttcag 180
 ttagttagtc caataaagca gagatgggtc gtgctccatg ctgcacaaaa gttggtctca 240
 acaaggagc atggtctgcc gaagaggata gtcttctggg aagatatatt caaactcatg 300
 gtgaaggcaa ttgga 315

<210> 1627
 <211> 373
 <212> DNA
 <213> Pinus radiata

<400> 1627
 cacatccata catgtggggg ggacagccgt tgatgccacc ttatgggact ccactaccat 60
 atcctgcaat gtatccacat ggaggaatct atgcacatcc ttccatgcct ccgggtgcac 120
 ttccgtatgg tcactatgga atgccatcac ctggcaatgc tgaagttaca acgactttag 180
 cacttccaaa tgctgaagca gaagccaagt cctcggaagg caaagagcgg aatacaatga 240
 agagatcaaa aggaagttta ggaagccttg gaatgattac tggcaaagga ggagaagggtg 300
 gcaaggcaac atcgggatct gcaaagtagg ccatgtcaca aagtggggac agtggcagtg 360
 acggttcaag cga 373

<210> 1628
 <211> 512
 <212> DNA

<213> Pinus radiata

<400> 1628

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| cggtaatagc | atagaggggat | tatacagagg | tggattgtta | ttgaaaccca | gtagtggagg | 60 |
| tagagtcttg | acaagtggg | acaaaggagg | gaattccacg | gatgttatag | atatggatat | 120 |
| agggactggg | agactaacag | gttctgaaag | gagacatgac | aaacggaatc | ctacatttac | 180 |
| agaccattat | agacattcag | acagtgatcg | aatgaagatg | aacagctact | tatatccaga | 240 |
| aaacaacaat | agcacggcgc | ttgttgcgtc | tctgtttgtt | cccaggaacg | acaaacttgt | 300 |
| aaagattgat | ggcaacctta | taatccatgc | agttctagct | ggggaaaaag | cctcgagagc | 360 |
| attatctgcc | tcacagtcta | gaggcaacaa | agatgggcat | gtagacacca | tttcacttca | 420 |
| aaaggaatat | gaaaagaata | gtttggcagt | cagaacagaa | aggcatcgtg | ctcttgctgc | 480 |
| tgctgccgcc | gccactacag | attcagccag | aa | | | 512 |

<210> 1629

<211> 395

<212> DNA

<213> Pinus radiata

<400> 1629

| | | | | | | |
|-------------|------------|------------|------------|-------------|-------------|-----|
| gagaaaacgg | acctgaccat | atcgaaacat | tcacaggggg | agattgatca | aacacaaata | 60 |
| ccgtaaaatc | gcagcgaaaa | tccaaaattc | caccatgggg | actgtggcgg | aggatggcag | 120 |
| caagggttac | aaggccgtaa | atccccatcc | caaaaagggc | gtcgcctcgt | ggctgggtgga | 180 |
| catgggtggag | aaactgggtg | ttgaaacttc | tgcgttgat | agttcgaaga | agcctctgca | 240 |
| ttttcttttg | gggaacttcg | ctccagtctc | ggaaactgcc | cccaaatcgc | acctgcctgt | 300 |
| tgttgggcaa | cttcctagtt | gcttggtgg | agagttcgtg | cgcgttgggtc | ccaatccgaa | 360 |
| attcgcaccg | gtagctggct | atcactgggt | tgatg | | | 395 |

<210> 1630

<211> 285

<212> DNA

<213> Pinus radiata

<400> 1630

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| ctctgcattt | tcttttgggg | aacttcgctc | cagtctcgga | aactgcccc | aaatcgcacc | 60 |
| tgctgttgt | tgggcaactt | cctagtgtgt | tggatggaga | gttcgtgcgc | gttgggtccca | 120 |
| atccgaaatt | cgcaccggta | gctggctatc | actggtttga | tggagatgga | atgatccatg | 180 |
| gtctcagaat | taaagatggt | aaagccacat | atgtgtcacg | ttatgtgaag | acatcacgct | 240 |
| tgaacaaga | ggaatacttt | gggaaagcaa | aattctttaa | gattg | | 285 |

<210> 1631

<211> 438

<212> DNA

<213> Pinus radiata

<400> 1631

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gtttttcaaa | gctcaggttt | aacagaaaat | acccgggaaa | attaacaaga | aaaaaggaaa | 60 |
| aacagagatt | ttgtttattt | ctgttattag | tctgctaaat | tggtttttga | taatttaatt | 120 |
| aattaaggcg | ggggcccgcg | cctccaggca | gtggcggaga | ccagtgggcg | gccctgccac | 180 |
| ccgaggagga | gagccgcgtg | cgctttctcg | acttcgaacc | cgcggtatg | gaggcgctgg | 240 |
| atcaggtact | ctgcctgcgt | ctcgggtgaag | ttgctgaagg | ccactgggga | gaagccggcg | 300 |
| gcggcgaaca | gggtcttcca | tggcggagcc | ggcggcggag | gaaatgggtg | cgtcgatctt | 360 |
| cggagctagc | aggaacttct | cgatcttgtg | cacggcctcc | atgttgatgt | tcacggcatc | 420 |
| cagtgaatcg | aacaggaa | | | | | 438 |

<210> 1632

<211> 457

<212> DNA

<213> Pinus radiata

<400> 1632

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| ccatattcgaa | acattcacag | ggggagattg | atcaaacaca | aataccgtaa | aatcgagcg | 60 |
| aaaatccaaa | attccacat | ggggactgtg | gcggaggatg | gcagcaagg | ttacaaggcc | 120 |
| gtaaatcccc | atccccaaaa | gggcgtcgcc | tcgtggctgg | tggacatgg | ggagaaactg | 180 |
| gtggttgaaa | cttctgctgt | gtatagttcg | aagaagcctc | tgcattttct | tttggggaac | 240 |
| ttcgctccag | tctcggaac | tgccccaaa | tcgcacctgc | ctgttggttg | gcaacttcct | 300 |
| agttgcttgg | atggagagtt | cgtgcgcgtt | ggccccaatc | cgaaattcgc | accggtagct | 360 |
| ggctatcact | ggtttgatgg | agatggaatg | atccatggtc | tcagaattaa | agatggtaaa | 420 |
| gccacatatg | tgtcacgtta | tgtgaagaca | tcacgct | | | 457 |

<210> 1633

<211> 318

<212> DNA

<213> Pinus radiata

<400> 1633

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aattgttgat | aatcagattc | cattgagtgg | acctgattca | gttattggta | gggcacttgt | 60 |
| tgtccatgag | ttagaggatg | acctggggaa | aggtgggcat | gaacttagtc | tgacaactgg | 120 |
| caatgctggg | ggcaggttgg | cttgtggtgt | ggttggactc | actcccattt | aaggcccagt | 180 |
| caaatatgga | atgatcttca | aaggtcattg | acatcgtatg | aaaccagtga | ctgcaataat | 240 |
| aattccaaaa | tatatgttct | ttatcctcgc | aagattgtta | gcaattgtga | tttgtttttg | 300 |
| gtattaacga | gttgact | | | | | 318 |

<210> 1634

<211> 211

<212> DNA

<213> Pinus radiata

<400> 1634

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gccgtggctg | ttcccaggag | aggagagcct | cagctgtctc | gatctggcgt | taaggggtta | 60 |
| cagaagaaga | atttcgaaga | tggttagatc | ttcttgctat | tcaaagcaag | gtcataggcg | 120 |
| tgggatttgg | accctatgg | aggatatgat | tctctctgaa | tacattcgaa | ttcatggcag | 180 |
| tgatggatgg | aaaaatatcg | cttaacgagc | a | | | 211 |

<210> 1635

<211> 350

<212> DNA

<213> Pinus radiata

<400> 1635

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggtttcttta | tatttatgtg | cagattgcct | ggacggacac | ttgccaatgg | acgtctcata | 60 |
| tggctgtgcc | aggccaacga | agcggacagc | aaagtcttcc | cacgtgctct | tcttgctaag | 120 |
| agcgctctta | ttcagactgt | tgtatgcac | cctctcgagg | acggtgtctt | ggagtttggg | 180 |
| actactgaag | tggagcgaga | agaccctgg | ctagtccaac | gcaccataag | cttttttttg | 240 |
| gagtaccca | aaccgatatg | ttcagagcaa | tctacatcca | gccacagtg | ctcagacaga | 300 |
| gacgaaaagg | atcaagtggg | catggtcaca | ataatgtcct | ccgacagcat | | 350 |

<210> 1636

<211> 356

<212> DNA

<213> Pinus radiata

<400> 1636

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggttgctgga | ttccaacgga | aaggatttgc | ctctttcatc | agtctataat | cgaggatctc | 60 |
| tgcagtcctt | tactagtga | ggtcattccg | tttcaacagt | aatcctccgt | attgaaaagg | 120 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aggaagaaga | gtttgtcttt | gttgacattc | ctgaaagacc | aattccctct | ctactacgca | 180 |
| attatagtg | tcctgtgcgt | cttgtttcag | atatcactga | tgatgatttg | tactttctac | 240 |
| ttgcacatga | ttcagatgag | tttaaccggg | gggaggctgg | ccagacattg | gcaagaaaac | 300 |
| tcatgctctc | tctcgtagat | aaggcgcaac | agaatcaacc | attgagtgtg | gaccca | 356 |

<210> 1637

<211> 362

<212> DNA

<213> Pinus radiata

<400> 1637

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| cgaggctccg | ttcaaccctt | ttcatcttca | atcggttccaa | ggcctcttcg | gtctgcctgg | 60 |
| gtgcgtttct | gaattttctc | ccaagtgcgt | gagtcgatcc | agccttggtt | cagcgaaacc | 120 |
| tggtgtggtt | ttgggttttc | ttggcttttg | ccttttcatt | ctttgtttcc | ttggattcga | 180 |
| actcgagatc | tcctgaatat | tatggcacag | gagagctgga | accaggagga | gaccgggtgc | 240 |
| caagtcccg | aagggtcat | gcgctgtgcc | aacaactgtg | gcttcttcgg | aagtccggcc | 300 |
| accatgagtc | tctgctccaa | gtgttaccgc | gaattcgtgc | tgctcaactc | ccctaaatcg | 360 |
| tc | | | | | | 362 |

<210> 1638

<211> 359

<212> DNA

<213> Pinus radiata

<400> 1638

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| cgaaactcga | atcgatatgc | tttgtggccg | gttcaaatat | ttgagctggc | ttagcttctc | 60 |
| tggttcagaa | atggcggact | aaagtaatat | tgtgccccga | ggtctgggtg | tcgaatctcg | 120 |
| ttggcgtgaa | aggtcaaatt | tttctctcga | gtttcattga | ttctgaaaaa | ctggcatagc | 180 |
| tatggcgatg | agcaatggga | gatttgtgtga | agatttggtg | aggattaagg | ggcgtggag | 240 |
| ccccgaggag | gacgcgtcgc | tgagagggtc | tggtcagaaa | tacgggccga | ggaactggac | 300 |
| cctgataagt | aaaggaatcc | cggggcgatc | cgggaaatcg | tgagggtac | ggtgggtgca | 359 |

<210> 1639

<211> 299

<212> DNA

<213> Pinus radiata

<400> 1639

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgagcaacag | cgaagccgat | ttccaaagat | ggatagggag | aaactcatga | agatggctgg | 60 |
| tgcagtcgc | actggcggaa | agggtaaat | gcgaaggaaa | aagaagacaa | ttcataagac | 120 |
| tgccacggca | gatgacaaga | gacttcaaag | taccttgaaa | agaataggcg | tgaataacat | 180 |
| ccctgctatt | gaagaagtca | atatttttaa | ggatgaccat | gttattcatt | ttgctaacc | 240 |
| aaaggtccag | gcttctattg | ctgccaacac | atgggtgggt | agtgggcac | gcaaacaaa | 299 |

<210> 1640

<211> 300

<212> DNA

<213> Pinus radiata

<400> 1640

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gaaactatga | accgcgcata | aaatcgaagg | cgaggagtgc | tagaagaggc | ggtgaagtgt | 60 |
| aagttgttat | ggggggaatt | atgctggctg | ggtcgacgat | gattcctgcg | ggcggcgcg | 120 |
| cggcagcggc | ggagacgtcg | gtggaggaag | gaggagaatt | gaataagatc | gaaagcccta | 180 |
| caccatcacc | aagtccagag | aaagctggac | tgagcaggag | cacaacaaat | ttctgcgaag | 240 |
| ctatgcagcc | tgtttgatag | ggactggaag | aagaattgaa | gcatttggtt | ggttcacaag | 300 |

<210> 1641

<211> 311
<212> DNA
<213> Pinus radiata

<400> 1641
gttcagctgt tcgcaaagca cggagcgaaa gtcataatcg cagacgttgc agagaaagct 60
ggcagaaagc ttgcagaatc cctttctcca gcatcggcaa cttatgtgca ctgtgatgtc 120
agcaaagaag aagacgtgag cgcggctgtg gatctggcta tggataagta tgggtcaactc 180
gacattatgt ataacaacgc tggaaactaac gacagctttc tgggtgaagag cgtggcagag 240
tatgatatgg agcaattcga tcgagtgatg aacgtaaacc tgaaaggagt gatgcacggc 300
attaagcacg c 311

<210> 1642
<211> 350
<212> DNA
<213> Pinus radiata

<400> 1642
agggatcagg caacgtccat gggggaaatg ggctgcagag atcaggggatc ccagaaaagg 60
cgctaggggt tggctgggta cctttaatac ggcgaggagaa gctgctcggg cttatgatgc 120
agctgcacga aagatcagag gtaagaaggc gaaagtaaat tttgttgatg agccaccacc 180
ctccgttaag aaggaaagta ataatgctaa ggggttccaag aaagggtcca gcaagaaaat 240
aaaatcatat ctaccccaaa gcctgacttt ttcgaagggt tcaaaacggc gaacccttcg 300
attgccaat acaacttcca tcagaaattc ccaaacccta actgtgatga 350

<210> 1643
<211> 322
<212> DNA
<213> Pinus radiata

<400> 1643
gacttttgct ccgaactggt ctgctgaaac aaaatccagt attgagctag gtttagaatc 60
gggtttgctg gtcattctggg agaggcgatc cattcagctt cgcaggcccc cgaagatggc 120
gttcgcccgc acaaccacga agtgcaaggc atgtgaaaag acggtctatt tggttgatca 180
attgacagct gataattctg tttttcacia atcctgtttc cgctgccatc actgcaatgg 240
aacttttaaag cttagcaact attcgtcgtt tgagggagtt ctatattgca aacctcattt 300
tgaccagctg ttttaagagaa ca 322

<210> 1644
<211> 345
<212> DNA
<213> Pinus radiata

<400> 1644
gccgaaactc gaatcgatat gctttgtggc cggttcaaat atttgagctg gcttagcttc 60
tctggttcag aaatggcgga ctaaagtaat agtggtgcccc gaggtctggt gttcgaatct 120
cgttggcgtg aaaggtcaaa tttttctctc gagtttcatt gattctgaaa aactggcata 180
gctatggcga tgagcaatgg gagatttgtt gaagatttgg ataggattaa ggggccgtgg 240
agccccgagg ggacgcgtcg ctgcagaggc ttgttcagaa atacgggccg aggaactgga 300
ccctgataag taaaggaatc ccggggcgat ccgggaaatc gtgca 345

<210> 1645
<211> 508
<212> DNA
<213> Pinus radiata

<400> 1645

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|------------|-----|
| cgtgtcaaag | cccaaacgac | ccgttttcaac | gcttataaca | tattatgtga | gtatcggagt | 60 |
| ggaaaaggcag | caccgagaaa | catatccgag | gagaaaagtat | actcatatat | taacgtaacg | 120 |
| gaaaaatggaa | ataatgatga | tcaaggcaaaa | ggtattacag | agggccatcc | tcatcccaag | 180 |
| aaaggcatcc | tttcatcggg | aattgatttg | gccgagaaaa | tcgtgggttcg | ctcgctctac | 240 |
| ggctccgcca | aacctctgca | ctacctcgct | ggtaatttcg | caccggtcga | acaagaaact | 300 |
| ccgcccgcaca | cagacttgct | cgctattgga | aatctcccta | aatgcttgga | tggagaattt | 360 |
| gtgcgagtcg | gtcccaatcc | cagattttgc | ccccgtcgct | ggctatcatt | ggttcgacgg | 420 |
| agaccggaat | gctcatgggt | tgaggattaa | agatggcaaa | gcagcttatg | tttcgcgttt | 480 |
| ccgtcaaaac | ttcacgtctc | aagcaaga | | | | 508 |

<210> 1646
 <211> 368
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1646 | | | | | | |
| tggctcttcc | cggcagacct | agtaagccga | ctactgtaaa | tttattcttt | tagggttaca | 60 |
| gaaaaagaaa | atacaagatg | ggcagatctc | cttgctgctc | aaaagaaggg | ctcaaccgtg | 120 |
| gggcctggac | caaaagggag | gatatgattc | tctccgaata | cattcgaatt | catggcgatt | 180 |
| gcggatggag | aaatatgccc | aaaagagcag | gtcttaaacg | gtgtggaaag | agctgcacga | 240 |
| ttacgatggc | tgaactatct | tcgccccgac | attaaacgtg | gaaacatttc | ccctgatgag | 300 |
| gaggaactca | taattcgggt | ccatcgccct | cttggcaatc | gatggtcgct | tatagcattg | 360 |
| aagattac | | | | | | 368 |

<210> 1647
 <211> 367
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1647 | | | | | | |
| cttcccttca | tcagatgttt | cccaggctgc | actcatcagc | tgcagcacca | cgcggttttg | 60 |
| gattctccct | gttctttgtt | ctgttgcggt | aaagattggg | tgcaggtcga | atcgcccagg | 120 |
| ccgatttgaa | ttctcctgag | gattgacaag | atgacgcgca | agtgcctcga | ctgtggcaac | 180 |
| aacgggcata | actccaggac | gtgccctaac | cgcggcgggg | tgaagctctt | cgcggttcgg | 240 |
| cttaccgatg | gcccgatcag | aaagagcgct | agtatgggga | atttgatgat | gatgtccaac | 300 |
| cctagctctc | ccgctgacct | ctccnagccg | gcctctgccg | cttctgctgc | cgcggcggcg | 360 |
| gcggcca | | | | | | 367 |

<210> 1648
 <211> 511
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1648 | | | | | | |
| gtggctcttc | ccggcagacc | tagtaagccg | actactgtaa | atttattctt | ttagggttac | 60 |
| agaagaagaa | aatacaagat | gggcagatct | ccttgctgct | caaaagaagg | gctcaaccgt | 120 |
| ggggcctgga | ccaaaaggga | ggatatgatt | ctctccgaat | acattcgaat | tcatggcgat | 180 |
| ggcgatgga | gaaatatgcc | caaaagagca | ggtcttaaac | ggtgtggaaa | gagctgcaga | 240 |
| ttacgatggc | tgaactatct | tcgccccgac | attaaacgtg | gaaacatttc | ccctgatgag | 300 |
| gaggaactca | taattcgggt | ccatcgccct | cttggcaatc | gatggtcgct | tatagcagga | 360 |
| agattaccag | gtcgaacaga | caacgaaatc | aagaactact | ggaacactca | tatgagcaag | 420 |
| aagctgcttc | cattgaacga | atctcaaccc | aagactttgc | ctgtcccca | gaggaggtcg | 480 |
| caatctcctt | ctcccttgca | aaatcgagtc | t | | | 511 |

<210> 1649
 <211> 364
 <212> DNA

<213> Pinus radiata

<400> 1649

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tgcgctcca | tcggaccaaa | caagtggggg | acatgcatat | tgcaagtgtg | gagaacactg | 60 |
| cagctgcaat | ccatgtaact | gttcaaagat | tgacgagact | gttagtggga | aatccttctg | 120 |
| taaatgtgga | gagaattgcg | cctgtgaaac | atgcacctgc | agcagagctg | gaatatagcc | 180 |
| tagttgattg | tttttctcag | ccagaactta | ggattccatg | accactagta | ataagatgca | 240 |
| gtatcaatag | cagctgatgt | ttatgtatgc | agtaagttaa | taaaagagag | tggttacttt | 300 |
| ttggctttag | taatttggtg | cttatgttat | gtatgtagta | agtttatctc | caaatacaga | 360 |
| gccg | | | | | | 364 |

<210> 1650

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1650

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| caagagtaaa | cccgaaggaa | tagaagggga | aggaggcatc | ggcagcgttg | ttcctcctcc | 60 |
| tctcctctcc | tgcatttctc | aaactcaa | acctctctc | tcacatcatg | gaaggcggag | 120 |
| tcgtctttga | atctgtgcaa | aaccactgg | atcgctgaa | caactggaaat | atggaccatg | 180 |
| gttggtgcca | ttacaggaga | cgatgtcgga | ttcggggccc | ttgttgcaat | gagatctatg | 240 |
| attgtaggca | ctgtcacaat | gaagccatga | gccatctaaa | ggaccccttg | ctgcgccatg | 300 |
| agctcccaag | atacaaagtt | gaacggggtta | tttgttctct | ctgtgacact | gagc | 354 |

<210> 1651

<211> 424

<212> DNA

<213> Pinus radiata

<400> 1651

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| cttcctgggtg | ttgttgctgt | gatttctctg | ccattctgtg | ttgggtttat | ggtttttagct | 60 |
| tcactacaag | ccttttagcaa | gcctcacaaa | taagctttgc | agtaggatgt | ctcctcccc | 120 |
| gtcatattcc | atgtttccca | attcaggaat | gggcttaaat | ccctcagtga | catcttcaga | 180 |
| accctctagt | caggtctccg | gategatccc | ccatcaatat | tcagggtccg | aggaagaccc | 240 |
| taaactgacg | atcgatgaaa | gaaagcagaa | gagaatgctt | tctaacagag | aatctgcaag | 300 |
| gaggtccagg | atgagaaagc | aacagcattt | ggatgaattg | agagcccgaa | cagctcatct | 360 |
| cagagcagag | aacagtcata | tgctaacaaa | attcaacatt | gcttcacaga | aatacatgca | 420 |
| gctg | | | | | | 424 |

<210> 1652

<211> 422

<212> DNA

<213> Pinus radiata

<400> 1652

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| gtcaatgctg | cccgtcgaac | tggaggccct | attgaaacta | tcaagaaatt | taatgcagga | 60 |
| tcaaacaaaag | cagcctcgag | cagcaccacc | ttgaacacca | agaagcttga | tgatgagaca | 120 |
| gaagttctcg | ctcatgaaag | agtttcatca | gatttgaaga | aaaacataat | gcaagcccg | 180 |
| ttagataaaa | agttgacaca | agcccagctt | gcacagcaaa | tcaatgaaaa | acctcagatt | 240 |
| attcaagagt | accgagtccg | ggaaagcaat | tcccaatcag | cagatcattg | ccaagctgga | 300 |
| aagggtcctt | ggtgtgaaac | tgcgtggaag | cactggaagt | ggaaagaaat | aactggaagt | 360 |
| atgcaatagc | aataacatgt | catagagtgt | tgtgatttgg | cgttcaccac | ccacacctgc | 420 |
| tt | | | | | | 422 |

<210> 1653

<211> 357

<212> DNA

<213> Pinus radiata

<400> 1653

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gnacgagctc | gatctggcct | taaggggtta | cagaagaaga | atttcgaaga | tgggtagatc | 60 |
| ttcttgctat | tcaaagcaag | gtcatagccg | tgggatttgg | acccttatgg | aggatatgat | 120 |
| tctctctgaa | tacattcgaa | ttcatggcag | tgatggatgg | aaaaatatcg | ctaaacgagc | 180 |
| aggtcttaaa | cgacgtggaa | agggttgcag | attacgttgg | ttgaactatc | ttcgccccga | 240 |
| cattaaacgt | ggtaacattt | ctcctgatga | ggaggacctc | attattaggt | tgcatggcct | 300 |
| tcttggcaat | cgatggtcct | tgatagcagg | acgactaccg | ggtcgaacag | acaacga | 357 |

<210> 1654

<211> 306

<212> DNA

<213> Pinus radiata

<400> 1654

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcgcattgtt | cagctgtgtc | gcagaacacg | gagcgaaagt | cataatcgca | gacgttgcag | 60 |
| agaaagctgg | cagaaagcct | gcagaatccc | tttctccagc | atcggaact | tatgtgcact | 120 |
| gtgatgtcag | caaagaagaa | gacgtgagcg | cggctgtgga | tctggctatg | gataagtatg | 180 |
| gtcaactcga | cattatgtat | aacaacgctg | gaactaacga | cagctttctg | gtgaagagcg | 240 |
| tggcagagta | tgatatggag | caattcgatc | gagtgatgaa | cgtaaacgtg | aaaggagtga | 300 |
| tgacacg | | | | | | 306 |

<210> 1655

<211> 368

<212> DNA

<213> Pinus radiata

<400> 1655

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cttcagtttg | ccattgaaga | ccaataaata | attattgtga | agcagcagcg | ttttaatcag | 60 |
| agatccagca | agaagaggac | caggaaaaat | catttgcaga | acaagaagat | aatccaagat | 120 |
| gtcaagcaca | cgagccctc | agtgtgggtg | cggagaaact | tgcgcttgcg | ccgattgcaa | 180 |
| gtgtggagtt | gtgagtattg | cgctccatc | cgaccaaaca | agtgggggac | atgcatattg | 240 |
| caagtgtgga | gaacactgca | gctgcaatcc | atgtaactgt | tcaaagattg | acgagactgt | 300 |
| tagtgggaaa | tccttctgta | aatgtggaga | gaattgcgcc | tgtgaaacat | gcacctgcag | 360 |
| cagagctg | | | | | | 368 |

<210> 1656

<211> 333

<212> DNA

<213> Pinus radiata

<400> 1656

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttgaattctt | gtcttcccc | cagctgaggc | tctctgagac | caaggtgaga | ttcagccagt | 60 |
| agtaagctat | agattgatag | ttcagagaaa | agactgaaag | gcaaaaacta | tatagacata | 120 |
| acaacggaga | gagcagcaca | ggaaccaggt | tgcataatgg | ctaggcctca | aagatacaga | 180 |
| ggagtccgtc | agaggcactg | gggatcatgg | gtctctgaaa | tccgccatcc | cttattgaag | 240 |
| accagaatat | ggctaggaac | atttgaaaca | gcagaggatg | cagcacgagc | atatgatgaa | 300 |
| gctgcaagga | tgatgtgtgg | gccgagagct | aga | | | 333 |

<210> 1657

<211> 355

<212> DNA

<213> Pinus radiata

<400> 1657

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| gttccccgtc | tcttccgtct | gctaggcatt | tctctgcgat | tcttcttctt | ctgctcgggg | 60 |
|------------|------------|------------|------------|------------|------------|----|

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tctctctggt | gaaatcgccc | ccgcaggagg | agggctgagg | gcagggctcg | gctcggctcg | 120 |
| gttcgtttcg | gcaggagtta | tctcagggtt | tttctcttga | ttttctgcgc | cttcggactc | 180 |
| gggcttacag | ttacagcatc | tggaaaatgg | cgtcacagga | gagctcaaaa | atgcaagagg | 240 |
| aagggagtgg | gagacaagtg | ccggaagggc | ccattcactg | tttgaacaac | tgcggcttct | 300 |
| tcgggagcgc | ggccaccatg | aacttgtgct | ccaagtgcta | cagagagctt | aacgc | 355 |

<210> 1658
 <211> 341
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1658 | | | | | | |
| ggggaatgat | tcctggccga | ggccattcga | gcgccataca | cattgcggcg | gactgcggga | 60 |
| agtattgttt | tcagtaattc | ccttaattgg | gtcccagaat | acgttctcag | atccgaaaac | 120 |
| ggttcagtc | atcggagggt | acagcgattc | gaaggcctga | aaaccctaaa | aatacctatc | 180 |
| cccctttgtc | tttgaatggc | ggagaactat | ggcagcccgg | atagcagccc | ccggtcggag | 240 |
| aacgaatccg | gcggcggtca | catgggcggc | agcgatttct | ctgtgaaaga | gcaggatcgg | 300 |
| ttcctgccta | tagccaacgt | ggggcgcata | atgaagaagg | c | | 341 |

<210> 1659
 <211> 353
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1659 | | | | | | |
| gaaaaacaaa | gcagaaagcc | accatgtggt | agaggagggt | ctgaggataa | aggagcttct | 60 |
| tgatgattct | tatcagcctc | aggaagtctt | gctagagtca | ctgcagagtt | tgtttaacat | 120 |
| gcatatttct | gtggaggctt | tgaaggagac | tgatattggt | agacaagtga | atggactgcg | 180 |
| aaaacattct | tctgctgaca | ttcgaaagct | agtaaaagag | ctcataagga | agtggaaaga | 240 |
| tcttgctgat | gagtgggtaa | gcactgcaga | tgaagtgcga | gctgctgcaa | ttgttgatgg | 300 |
| agattctcca | caaggtgggt | gcagcagaat | ttctcaacag | agtattgtgc | aga | 353 |

<210> 1660
 <211> 317
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1660 | | | | | | |
| caagagtaaa | cccgaaggaa | tagaagggga | aggaggcatc | ggcagcgttg | ttcctcctcc | 60 |
| tctcctctcc | tgcatctctc | aaactcaaat | acctctcctc | tcacaatcat | ggaaggcgga | 120 |
| gtcgtctttg | aatctgtgca | aaaccactcg | gatcgcttga | acactggaaa | tatggaccat | 180 |
| ggttgtgccc | attacaggag | acgatgtcgg | attcggggcc | cttggttgcaa | tgagatctat | 240 |
| gattgtaggc | actgtcacia | tgaagccatg | agccatctaa | aggaccctt | gctgcgccat | 300 |
| gagctcccaa | gatacaa | | | | | 317 |

<210> 1661
 <211> 340
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| <400> 1661 | | | | | | |
| caatggcggc | ccagactatc | atcgctgcct | ctatggcatc | tcctctaaca | ttatcaaagt | 60 |
| gccactatcc | gtttcagtc | gagttcaagg | ggcccggtgt | tcgaatccc | cagagggcat | 120 |
| tttctctcgc | gcctgcagcc | cgggcgctga | ccgtcgtcgc | agaggccaag | aaggccgttg | 180 |
| ccgtgctcaa | aggggaattca | caggtcgagg | gtgttgctcag | tctctcgcag | gaagacagcg | 240 |
| gtcccacaac | agtgaaggct | cgtttgacag | gactgactcc | tgggaagcat | ggctttcatc | 300 |
| tacatgagtt | tggtgacaca | accaatggct | gcataatcaac | | | 340 |

<210> 1662
 <211> 563
 <212> DNA
 <213> Pinus radiata

<400> 1662
 ttcggttcgt attcaggggt tccggagctt gttgtgtggt gttctgcagg tcaggacatt 60
 gtaggcctgg ttatacaaga tttcgaagca aactctcggg gcctcgaaga atcggcgcaa 120
 atttcaacgg ccttataact atttggaag cagtactctg gatttttctc ccggaacgga 180
 tccgagtgtg cgaagcgtaa taatcgccgt gaatttgtct tctgcaagat aatattcaat 240
 taatctattg tcgaaggaaa tttgagccgt ataagaggat aatcaaaaga agccggttga 300
 tttctccggg attaaaggat ggatcaagaa aactggaaca tccgagctga tggcactggc 360
 tgccaactcc agaaggcac actctttgcg ccaataactg cggctttttt ggcagttcgg 420
 caacgagaaa cctgtgttcg aaatgttaca gggatctgat tatgaaggag gcccaagcct 480
 catctgcaat ggcgcgcgtt gagaagtcatt ttgccgcggg ttctccgatg gaggaggagg 540
 cccctctttc caagccagat gtt 563

<210> 1663
 <211> 572
 <212> DNA
 <213> Pinus radiata

<400> 1663
 cagcaatggc ggcccagact atcatcgctg cctctatggc atctcctcta acattatcaa 60
 atggccacta tccgtttcag tccgagttca aggggtccgt gggtcgaatc ccgcagaggg 120
 cattttcctt cgcgcctgca gcccgggcgc tgacagtcgt cgcagaggcc aagaaggccg 180
 ttgccgtgct caaaggaaat tcacaggtcg aggggtgtgt caatctctcg caggaagaca 240
 acggtcccac aacagtgaag gtccgtttga caggactgac tccctgggaag catggctttc 300
 atctacatga gtttggtgac acaaccaatg gctgcatctc aacaggagca cattttaatc 360
 caaaaaaatt gacacatggt gtccttgagg acgatgtacg ccatgcgggt gacctgggaa 420
 acatagtgc ggggttctgat ggagttgcag aggaacaat tgttgataat cagattccat 480
 tgagtggacc tgattcagtt attgggaggg cacttgttgt ccatgagtta aaggatgacc 540
 tggggaaagg tgggcatgaa cttagcctga ca 572

<210> 1664
 <211> 366
 <212> DNA
 <213> Pinus radiata

<400> 1664
 atcgcttcgg cccgagcaat tttgcttctc tgctaaacga tgggaagagc gccttgctgt 60
 gccaacggtg acagaagcaa gggagcctgg accaaggaag aggatgacag gcttacccaa 120
 tatattcagg ctcatggaga aggatgctgg cgttctctcc ccaaggccgc aggtctgctt 180
 cgggtgtggaa aaagtgtcag gctgagatgg ataaattatc ttcgccctga tctgaaacga 240
 ggaggttttt ctgaagatga agacgatctt attctcaaac tgcacgccct cctcggaat 300
 aagtggcttc tgatagcggg tcgtttgcct ggtcgaactg gccacaaaaa tcaaaactac 360
 tggact 366

<210> 1665
 <211> 348
 <212> DNA
 <213> Pinus radiata

<400> 1665
 gcatcttgct cgtgactgca ccaacaaccc agtttgtaat ttgtgcaata tatctgggtca 60
 tgtggccagg gagtgcccc aaggctcgcat tttggatggt antaggggtg gaagatttat 120

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| tgacgatagg | cgtggaagat | ttaatgacat | aatctgtagg | acatgcaacg | agccagggca | 180 |
| taccagtagg | gagtgactg | gaattctcat | ctgccacaac | tgtggtggcc | gtggacatgt | 240 |
| tgcatactaa | tgcccctctg | gtcgtgtgat | gctgcgggac | atgcgcaggc | attgatgctg | 300 |
| caatttctac | aacaccttga | cttttttagat | tatctgattt | tgacaaat | | 348 |

<210> 1666
 <211> 422
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|-----|
| <400> 1666 | | | | | | |
| agagagaagg | gtgttccctg | gactgaagaa | gagcacaggc | agtttttgat | gggccttcgc | 60 |
| aagtacggca | aaggcgactg | gagaagtatt | tctagaaact | ttgttggtgc | aaggacacca | 120 |
| acccaagttg | ccagccatgc | tcaaaagtac | tacattcggc | ttggttcgga | taataaaaaac | 180 |
| aagagaagat | ccagcatata | tgatatac | actgttcatg | gtacagacag | gatgccttct | 240 |
| cctttactgc | acgtttctaa | taggcagact | aattccccct | caacacaggc | agaaatgaat | 300 |
| cattcaccat | gtctgacata | tccatctcag | atttcacgag | gacctctaata | aaactccttg | 360 |
| ggacctcaaa | tagatggtaa | ccttctattt | tcacctcact | atcctctaaa | tctgtataacc | 420 |
| ca | | | | | | 422 |

<210> 1667
 <211> 467
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1667 | | | | | | |
| cttgtttgtg | ggtgttctgc | aggtcaggac | attgtaggcc | tggttatata | agatttcgaa | 60 |
| gcaaactctc | ggagcctcga | agaatcggcg | caaatttcaa | cggccttata | actatttggg | 120 |
| aagcagtact | ctggattttt | ctcccgaac | ggatcggagt | gtgcgaagcg | taataatcgc | 180 |
| ctggaatttg | tcttctgcaa | gataatattc | aattaatcta | ttgtcgaagg | aaatttgagc | 240 |
| cgtataagag | gataatcaaa | agaagccggg | tgatttctcc | gggattaaaag | gatggatcaa | 300 |
| gaaaactgga | acatcggagc | tgatggcact | ggctgccaa | ctccagaagg | gcacactctt | 360 |
| tgcgccaata | actgcggctt | ttttggcagt | tcggcaacga | gaaacctgtg | ttcgaaatgt | 420 |
| tacagggatc | tgattatgaa | ggaggcccaa | gcctcatctg | caatggc | | 467 |

<210> 1668
 <211> 465
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1668 | | | | | | |
| tccagatgtt | cgtggttagac | atgaaatttt | agagctttat | ttgcaaaata | agcctctggc | 60 |
| tgaagatgtg | aatgtgaaag | cccttgctcg | tggtacacct | ggtttcaatg | gtgcagattt | 120 |
| ggcaaaccct | gtcaacattg | cggccatcaa | ggcagcagtt | gatggcagtg | agaagttgtc | 180 |
| tgccaaacat | ctggaatttg | cgaaggatag | aataatgatg | ggaacagaac | ggaagtcgat | 240 |
| gttctatca | gaggagtcga | aaaagctcac | tgcataccat | gagagtggac | atgcagttgt | 300 |
| tgcatttaat | actgtaggtg | caaaccctat | acacaaggct | acaatcactc | ctcgaggag | 360 |
| tgctcttggg | atggttacac | agctgcctga | caaggatgaa | acatctgtta | ataaaaacga | 420 |
| attattagca | cgacttgatg | tttgtatggg | cggacgagtt | gcaga | | 465 |

<210> 1669
 <211> 421
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|----|
| <400> 1669 | | | | | | |
| cgaaccatgg | agtctaaggg | acaggctaata | ccatctgttg | cttctgtttg | taatctcagc | 60 |

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| aagaatggag | agcgacgatt | ggaagggaaa | gttgttatag | taacgggagg | ggcagcgggc | 120 |
| ataggagaag | ccattgttca | gctgttcgca | aagcacggag | cgaaagtcac | aatcgacagc | 180 |
| gttgacagaga | aagctggcag | aaagcttgca | gaatcccttt | ctccagcatc | ggcaacttat | 240 |
| gtgactgtg | atgtcagcaa | agaagaagac | gtgagcgagg | ctgtggatct | ggctatggat | 300 |
| aagtatggc | aactcgacac | tatgtataac | aacgctggaa | ctaacgacag | ctttctgggtg | 360 |
| aagagcgtgg | cagagtatga | tatggagcaa | ttcgatcgag | tgatgaacgt | aaacgtgaaa | 420 |
| g | | | | | | 421 |

<210> 1670
 <211> 445
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|------------|-------------|------------|------------|-----|
| <400> 1670 | | | | | | |
| ccatattcgaa | acattcacag | ggggagattg | atcaaacaca | aataccgtaa | aatcgacagc | 60 |
| aaaatccaaa | attccacacat | ggggactgtg | gcggaggatg | gcagcaaggg | ttacaaggcc | 120 |
| gtaaatcccc | atcccaaaaa | gggctgcgc | tcgtggctgg | tgacatggg | ggagaaactg | 180 |
| gtggttgaaa | cttctgcgtt | gtatagtctg | aagaagcctc | tgcattttct | tttggggaac | 240 |
| ttcgctccag | tctcggaac | tgccccaaa | tcgcacctgc | ctgttggttg | gcaacttcct | 300 |
| agttgcttg | atggagagtt | cgtgcgcgtt | gggtcccaatc | cgaaattcgc | accggtagct | 360 |
| ggctatcact | ggtttgatgg | agatggaatg | atccatgggc | tcagaattaa | agatggtaaa | 420 |
| gccacatatg | tgctacgtta | tgtga | | | | 445 |

<210> 1671
 <211> 460
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|-------------|--------------|------------|-----|
| <400> 1671 | | | | | | |
| cagacttttg | ctccgaactg | ttctgctgaa | acaaaatcca | gtattgagct | aggtttagaa | 60 |
| tcggggttgc | tggtcatctg | ggagaggcga | tccattcagc | ttcgaggcc | cccgaagatg | 120 |
| gcgttcgccc | gcacaaccca | gaagtgcgaag | gcattgtgaa | agacggtcta | tttggttgat | 180 |
| caattgacag | ctgataattc | tggtttttcac | aaatcctggt | ttcgctgcca | tactgcaat | 240 |
| ggaactttta | agcttagcaa | ctattcgtcg | tttgaggagg | ttctatatattg | caaactcat | 300 |
| tttgaccagc | tgtttaagag | aacaggaagt | ttggataaaa | gttttgaagc | cattcctaga | 360 |
| gcattcaagaa | atgacaagat | gcattgagaat | gagaacagga | cacctagtag | ggtatcagca | 420 |
| ttgtttttccg | gtacacagga | taaattgtgtt | gcattgtggga | | | 460 |

<210> 1672
 <211> 301
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1672 | | | | | | |
| ttgttggttg | gagacggaga | acattgcttt | gttaaattgg | tcagcgggtt | tgacgtgaa | 60 |
| tccgaggctg | ttgcatcctt | aaaagtgttt | tacctttgtg | gtttggacct | tagggtttga | 120 |
| actctttaaa | gaaactctca | aaatcagcct | taaacaataa | catacaagat | gtccattcta | 180 |
| ccccaaagcg | attccctcat | aataagggaa | gtttgggcag | ataatctgga | ggaggagttt | 240 |
| gctttgatcc | gggaaattgt | ggacgattac | ccttatattg | ctatggatac | tgagtttctt | 300 |
| g | | | | | | 301 |

<210> 1673
 <211> 321
 <212> DNA
 <213> Pinus radiata

<400> 1673

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| aacacaaaata | ccgtaaaaatt | gcagcgaaaa | tccaaaattc | caccatgggg | actgtggcgg | 60 |
| aagatggcag | caaggggttac | aaggccgtaa | atccccatcc | caaaaagggc | gtcgccctcg | 120 |
| ggctggtgga | catgggtggag | aaactgggtg | ttgaaacttc | tgcgttgat | agttcgaaga | 180 |
| agcctctgca | ttttcttttg | gggaacttcg | ctccagtctc | ggaaactgcc | cccaaatcgc | 240 |
| acctgcctgt | tggtgggcaa | cttcctagtt | gcttgatgg | agagttcgtg | cgcgttggtc | 300 |
| ccaatccgaa | attcgaccg | g | | | | 321 |

<210> 1674

<211> 380

<212> DNA

<213> Pinus radiata

<400> 1674

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| cctgttcgat | atcactgctg | aacctatcag | ttgtccatta | ccttcgcctg | ccttcgcctgt | 60 |
| attgtcatca | cagtcggcct | ctgatcaaga | agaagccgaa | tcaggtgata | attctgcaaa | 120 |
| ttctgcagat | gtagaaactc | ttcttcctca | ggttgatgaa | acagcttctg | ctgatctgac | 180 |
| agtgttccca | ggttttggtta | ccccttatgt | accatacggg | ttccccatat | ggcacacttt | 240 |
| tagaccaca | ataactcaaa | cttccaatgt | ttataagcca | acagctgtaa | tgccaactgc | 300 |
| tccaataaaa | atggacgaat | gcacaggggt | atcccagtta | agcctcggcg | gtgttgacgc | 360 |
| ggcttctgca | atgaaaccct | | | | | 380 |

<210> 1675

<211> 350

<212> DNA

<213> Pinus radiata

<400> 1675

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cccagctgag | gctctctgag | accaaggtga | gattcagcca | gtagtaagct | atagattgat | 60 |
| agttcagaga | aaagactgaa | aggcaaaaac | tatatagaca | taacaacgga | gagagcagca | 120 |
| caggaaccag | gttgcataat | ggctaggcct | caaagataca | gaggagtccg | tcagaggcac | 180 |
| tggggatcat | gggtctctga | aatccgccat | cccttattga | agaccagaat | atggctagga | 240 |
| acatttgaaa | cagcagagga | tgcagcacga | gcatatgatg | aagctgcaag | gatgatgtgt | 300 |
| gggccgagag | ctagaaccaa | cttcccattc | aatcccatgc | acctccatct | | 350 |

<210> 1676

<211> 262

<212> DNA

<213> Pinus radiata

<400> 1676

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| aagtgcgctt | catatctaac | caataataac | acctgtatag | cttcacagca | acagggcacc | 60 |
| atgggccgag | ctcttgctgt | gataaaaatg | gagtaaaaga | aaggcccctg | gactctaacg | 120 |
| aagataaaaat | actggctgac | tacattacca | aacatggcca | tggcaactgg | cgtgcactgc | 180 |
| ccaagcaagc | agggctcctg | cgatgtggaa | agaagttgtc | gcctgcgggg | gacgaattac | 240 |
| ctgaaacccg | acatcaaaag | ag | | | | 262 |

<210> 1677

<211> 357

<212> DNA

<213> Pinus radiata

<400> 1677

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgacaatggc | gcggacggga | ttcgaaaccg | cgacgctcgg | cctcgaacgt | accgaggcgt | 60 |
| tcgccgccgg | agctggggga | agtgggtgtc | cgagattcgc | gagcctggga | agagaaagcg | 120 |
| catatgggtg | ggatccttcc | aaacggcaga | gatggcggct | cgagcttacg | acgtggctgc | 180 |
| gctcagcctg | aagggaagat | ctgctttgcc | caatttcccg | gattccgtcc | acacgctgcc | 240 |
| gcgcccctct | tctctgaatc | ccagagatat | ccagcttggc | ggctgccag | gcagccgcga | 300 |

attaacgcag ccgatggctct ctaccgatat ttcctcctgc aaccgcaaga tcaaaat 357

<210> 1678
<211> 354
<212> DNA
<213> Pinus radiata

<400> 1678
cacgaggcag tatctaccaa tgtcggggag agacaggaag cttgtttgtgc ttggtattcc 60
ttgggatgtc gacactgaag gtttacagga ttatatgagc aagtttggag aactggatga 120
tgtgattgtt atgcgggagc gtgcaactgg tcgttctcgt ggatttgggt atgccacatt 180
ttcttcagtt gaagatgcta agaaagcact tgacagtga catgttctaa atggtcgtac 240
actggaagta aagggtggcta caccgaagga ggagatgaag gtccttcta agaagattac 300
ccgatattt gnggcaaga attccccctt ctgttacaga ggatgcattc cgaa 354

<210> 1679
<211> 174
<212> DNA
<213> Pinus radiata

<400> 1679
gtccggggcgg tggagagcat cagccttggg gttacagacc aggaaaatac aagatgggta 60
gatctccttg ctgctccaaa gaggggctca accgcggggc ctggaccaa agggaggata 120
tgattctctc cgaatacgtt cgaattcatg gcgatgggtg atggaaaaat gttg 174

<210> 1680
<211> 221
<212> DNA
<213> Pinus radiata

<400> 1680
gttcattaag catggagcca aagtcataat cgcagacgtt gcggagaaaag ttggcaggaa 60
gcttgaggaa tcactttctc ccgctgtggc aacctacgtg cactgcatg tgagcaaaga 120
agaagatgtg agcgcggcgg tggatgtggc catggataag tatggccaac tggacattat 180
gtataacaac gctggaacta atgacagatt tttggtgaag a 221

<210> 1681
<211> 363
<212> DNA
<213> Pinus radiata

<400> 1681
gcttaggcgc attaaggagc aaaggaaggg aaaatatcac agcgacacag caaaacagag 60
acagtcacaa gaacaagccc gaaggaaaaa gatgtcccgg gcacaggatg gtatactgaa 120
gtacatgctg aaaatgatgg aagtttgcaa agcacaaggt tttgtatatg gtatcattcc 180
tgaaaaaggg aagcctgtaa gtggagcctc ggacaatcct aaagcatggg ggaaggagaa 240
ggtcagattt gataggaatg gccctgctgc aatcaccaaa tatcaagcag aacatgcaac 300
acctggagca aatgagagta acatggttgt ggctcctacc cctcactac ttcaggaact 360
tca 363

<210> 1682
<211> 374
<212> DNA
<213> Pinus radiata

<400> 1682
ctgatttgaa gtgctcattc atgaacaatc cgagcagcag ttatgcataa aatgttgatt 60

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gcagggctcc | gttattgcga | gcaactaaag | ggcgatgggtg | ttacaatcaa | atatcgagaa | 120 |
| cgagaatgaa | tctgaagcct | ctcggaatgc | tacaaattgg | taatttggct | cctgttagaa | 180 |
| gagcattctc | atcacctaga | gcctcagcag | atgaagaagc | tgctgcaaaa | gcagctgctg | 240 |
| ctgtagcaga | gacaggagcc | ccaaccatat | ttgacaagat | cataaagaag | gaaattccag | 300 |
| caactattgt | ttatgaggat | gcaaaaagtg | tggcatttcg | agatattaat | ccacaggcac | 360 |
| cagtccatat | attg | | | | | 374 |

<210> 1683
 <211> 407
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1683 | | | | | | |
| gccgtggctg | ttcccaggag | aggagagcct | cagctgtctc | gatctggcct | taaggggtta | 60 |
| cagaagaaga | atttcgaaga | tgggtagatc | ttcttgctat | tcaaagcaag | gtcatagccg | 120 |
| tgggatttgg | accctatagg | aggatatgat | tctctctgaa | tacattcgaa | ttcatggcag | 180 |
| tgatggatgg | aaaaatatcg | ctaaacgagc | aggtaaaatt | ctaatagcaa | tttttattgc | 240 |
| aaacgtaata | ctcattgaga | ggttaactaa | gcgggcagtt | ttgttctgc | aggctctaaa | 300 |
| cgacgtggaa | agggttgcag | attacgttgg | ttgaactatc | ttcgccccga | cattaaacgt | 360 |
| ggtaacattt | ctcctgatga | ggaggacctc | attattaggt | tgcatgg | | 407 |

<210> 1684
 <211> 361
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1684 | | | | | | |
| gttccagacc | ttttgcatct | tcattattct | tccgcctgtg | aaaagatggg | gagatctccg | 60 |
| tgctgtgaga | aggctcatat | taacaaaggg | gcctggacta | aacaagaaga | tgaccgcctt | 120 |
| atcgctcaca | ttcgagccca | cggcgaaggg | ggctggcggt | ctcttcccaa | ggccgcaggg | 180 |
| ctgctgagat | gcggcaagag | ctgcagactg | cgatggataa | actacctgcg | tcccgatctg | 240 |
| aagcgtggaa | gcttcacgga | agaagaagac | gaactcatca | tcaaactcca | ctccttcggt | 300 |
| ggcaacaagt | ggctctttaat | tgcagggaga | ttgcccggac | ggacggacaa | cgagataaag | 360 |
| a | | | | | | 361 |

<210> 1685
 <211> 340
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1685 | | | | | | |
| caagagtaaa | cccgaaggaa | tagaagggga | aggaggcatc | ggcagcgttg | ttcctcctcc | 60 |
| tctcctctcc | tgcatctctc | aaactcaaat | acctctcctc | tcacaatcat | ggaaggcgga | 120 |
| gtcgtctttg | aatctgtgca | aaaccactg | gatcgctga | acactggaaa | tatggaccat | 180 |
| ggttgtgccc | attacaggag | acgatgtcgg | attcggggcc | cttggtgcaa | tgagatctat | 240 |
| gattgtaggc | actgtcacia | tgaagccatg | agccatctaa | aggaccctt | gctgcgcat | 300 |
| gagctcccaa | aatacaaaag | tgaacggggt | atttgggtct | | | 340 |

<210> 1686
 <211> 332
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1686 | | | | | | |
| ggctcttccc | ggcagaccta | gtaagccgac | tactgtaaat | ttattctttt | agggttacag | 60 |
| aagaagaaaa | tacaagatgg | gcagatctcc | ttgctgtctc | aaagaagggc | tcaaccgtgg | 120 |
| ggcctggacc | aaaagggagg | atatgattct | ctccgaatac | attcgaattc | atggcgatgg | 180 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgatggaga | aatatgccc | aaagagcagg | tcttaaaccg | tgtggaaaga | gctgcagatt | 240 |
| acgatggctg | aactatcttc | gccccgacat | taaacgtgga | aacatttccc | ctgatgagga | 300 |
| ggaactcata | attcggctcc | atcgcttct | tg | | | 332 |

<210> 1687

<211> 347

<212> DNA

<213> Pinus radiata

<400> 1687

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| gattgatcaa | acacaaatac | cgtaaaattg | cagcgaaaat | ccaaaattcc | accatgggga | 60 |
| ctgtggcgga | agatggcagc | aagggttaca | aggccgtaaa | tcccatccc | aaaaagggcg | 120 |
| tcgcctcgtg | gctgggtggac | atgggtggaga | aactgggtgt | tgaaacttct | gcgttgata | 180 |
| gttcgaagaa | gcctctgcat | tttcttttgg | ggaacttcgc | tccagtctcg | gaaactgccc | 240 |
| ccaaatcgca | cctgcctgtt | gttgggcaac | ttcctagtgt | cttggatgga | gagttcgtgc | 300 |
| gccgttggtc | ccaatccgaa | attcgcaccg | gtagctggct | atcactg | | 347 |

<210> 1688

<211> 354

<212> DNA

<213> Pinus radiata

<400> 1688

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| cgataggcgt | ggaagattta | atgacataat | ctgtaggaca | tgcaacgagc | cagggcatac | 60 |
| cagtagggag | tgacttgga | ttctcatctg | ccacaactgt | ggtggccgtg | gacatgttgc | 120 |
| atacgaatgc | ccctctggtc | gtgtgatgct | gcgggacatg | cgcaggcatt | gatgctgcag | 180 |
| tttctacacc | accttgactt | tttagattat | ctgattttga | caaactctatt | ttgaatttgg | 240 |
| aagttctttt | tctgagtagt | tagatcagta | gacctgtcgt | atcagttatt | atacagtttt | 300 |
| cttatactag | tcctttactt | caagactggc | tgatatactt | ctattttcat | atga | 354 |

<210> 1689

<211> 348

<212> DNA

<213> Pinus radiata

<400> 1689

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| ggagattcct | ctctgcaaaa | tgcgctggac | cttgcctcatg | gttatctgag | ccagattcca | 60 |
| tcatatggtc | atcggaagt | tctagtcttg | tattcagcac | taagcattg | tgatccaggg | 120 |
| gatatcatgg | aaagtataaa | gaaatgcaag | aattcgaaaa | tgcgatgctc | agtggttgga | 180 |
| ttatctgcag | aaatttatat | ttgcaaacac | ctctgtgagg | agacgggagg | attctattcc | 240 |
| gtggcatttg | atgagtcaca | tttcaaggac | cttctgcttg | aacattgccc | tccaccacca | 300 |
| gccatagcag | agtttgagct | tgctagcttg | gtcaagatgg | gatttcct | | 348 |

<210> 1690

<211> 349

<212> DNA

<213> Pinus radiata

<400> 1690

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tgcataccat | cattgtaatg | gaggtgaaag | gaataggagt | gggattctta | ttaagcaatg | 60 |
| gaaggttacg | ctgcgaataa | cgatgcagaa | cttctgagca | aaacccttca | agtggaacag | 120 |
| aagttgttct | atttcgatct | caaggaaaac | ccccgaggtc | aataccttaa | aatctctgag | 180 |
| aagacctccg | gctcacggtc | tacaataatt | gtgcccattg | gtggagtgtc | atggttcctc | 240 |
| gatctcttta | attattatgt | cgacggagat | gacgaggaag | ttttgagcaa | ggaattgcag | 300 |
| ctggatgcca | aggtatttta | tttcgatgtt | ggggtgaata | aaaggggtc | | 349 |

<210> 1691

<211> 339
 <212> DNA
 <213> Pinus radiata

<400> 1691

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| ctgaagtgcc | gtcgattggt | cgggaggata | gcgtttttcga | agttcgttgt | tgagttatct | 60 |
| cgcgagactg | tagaatttta | gggttggttt | ccacaaaccg | acttttcccg | acttcaaate | 120 |
| ttgatattga | agtgacatgg | ccggcgagaa | aagaaagatt | aatagaatag | ctaacgcttc | 180 |
| ggccaggcag | gtcaccttcg | cgaagaggcg | gagggggctg | ttcaaaaaag | ctcaggagct | 240 |
| atcgatttta | tgcaagccg | atgtagccct | cctcgttttt | tcttcaactg | gaaagctgta | 300 |
| ccagtactcc | agctccagca | tgaaaatgat | attggacca | | | 339 |

<210> 1692
 <211> 380
 <212> DNA
 <213> Pinus radiata

<400> 1692

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| gaaaccatga | gggtcttgcc | acaaggtttg | ttgagccaca | acctgaatgg | tcagtatttc | 60 |
| gtgaggcgag | ctttggacat | ggggaactta | gagttgccaa | tgcaacacat | gcacattgga | 120 |
| gctggcatcg | taatgatgat | gatgagccag | ttaaatctga | tgaagtttgg | atcaataatc | 180 |
| ttagccaatc | aagagaatgt | atagaaagta | ccgactacag | tggaaggaaa | ataactaattg | 240 |
| caccttgagt | atatgcttgg | agggagaagt | gatctaactg | taattgccaa | ggcaaaacac | 300 |
| tgagtgtgag | ctcatgcacg | gcaatgaatt | tatgggttcag | tgtttagttg | tatggaagta | 360 |
| tattattcat | tagacatgca | | | | | 380 |

<210> 1693
 <211> 442
 <212> DNA
 <213> Pinus radiata

<400> 1693

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggatatcatc | agctgtccag | tttgtcctaa | gagactacag | aagaagaata | tagaagatgg | 60 |
| gtagatcccc | ttgcccccca | aaagaagcgc | ttaaccgtgg | ggcttggaac | ggcatggagg | 120 |
| atagcattct | caccgagtag | attcgagttc | atggcagttg | tggctggaaa | gatatctcca | 180 |
| aaagagcagg | tcttaagagg | tgtgcaaaga | gttgagattg | gcgttggtcg | aactatcttc | 240 |
| gtcccgatat | taaacgtggg | aacatttctc | ccgaggaaga | agagctcatt | attcggttgc | 300 |
| atgccttct | tggaatccg | tggtctctga | tagcaggacg | actgcctggg | cgaacagaca | 360 |
| acgaaatcaa | gaattactgg | aacactcata | tgagcaagaa | gccatggctg | tcaatggacg | 420 |
| aatctcagtc | caatacttcg | ca | | | | 442 |

<210> 1694
 <211> 351
 <212> DNA
 <213> Pinus radiata

<400> 1694

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| tttttttttt | tttttcttta | ctccacacct | tttgttcgtc | tgcgcatggg | tttgtatctg | 60 |
| atgtcaaaat | tgtctgcaac | gcatgctgat | gttgattccc | atgcccgaat | acaacatctg | 120 |
| cacaaatagg | aagttaagaa | ttaaagcgaac | aataaaagtg | ccagccatta | gcagtaaatt | 180 |
| ggcagatatc | cctcccgatg | attattcgtg | gaggaagtat | ggacaaaagc | caatcaaggg | 240 |
| ctccccacat | ccaaggggct | attataagtg | cagcagcatg | agaggttggt | ctgcccggaa | 300 |
| acatgtggag | cggtgtccag | atgaaccttc | catgcttatt | gtgacttatg | a | 351 |

<210> 1695
 <211> 304
 <212> DNA

<213> Pinus radiata

<400> 1695

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| caaggccgta | aatccccatc | ccaaaaaggg | cgccccctcg | tggctggtgg | acatggtgga | 60 |
| gaaactggtg | gttgaaactt | ctgcgttgta | tagttccaag | aagcctctgc | attttctttt | 120 |
| ggggaacttc | gctccagtct | cggaaactgc | ccccaaatcg | cacctgcctg | ttgttgggca | 180 |
| acttcctagt | tgcttggatg | gagagtctgt | gcgcgttggt | cccaatccga | aattcgcacc | 240 |
| ggtagctggc | tatcactggt | ttgatggaga | tggaatgatc | catggtctca | gaattaaaga | 300 |
| tggt | | | | | | 304 |

<210> 1696

<211> 371

<212> DNA

<213> Pinus radiata

<400> 1696

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcgtggatgt | acaacgaata | tggatccata | gaggctctgc | actttgggga | tttccctggt | 60 |
| ccaaagcctg | ggttaggcca | gctcttaatt | cgagtcgggg | ccgctgctct | taatcctgcc | 120 |
| gactttaaga | gacggaaagg | cttattaaga | aacgcggatt | ccgattttcc | gactgtgcca | 180 |
| ggctgtgata | tgtcaggagt | ggtggtggaa | attggtgatg | gtgtctccaa | gttcaaggcc | 240 |
| ggtgacgaga | tatacagcaa | catccagaat | ttcgagcag | ggaggccaaa | gcagtgcggg | 300 |
| actctcgccc | agtacacagt | ggtggaggaa | ttcctggtag | cgccgaagcc | cagtaattta | 360 |
| tcatttgagg | a | | | | | 371 |

<210> 1697

<211> 523

<212> DNA

<213> Pinus radiata

<400> 1697

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| ccttcattgga | tatgttggag | ttgattcgcc | accatttgct | ggaagtggag | gacaatatag | 60 |
| atatagatat | tgatattgag | ggaacttcgc | cgttgttctt | cacccccact | gccattgaga | 120 |
| gtggcgatta | tattaatatt | gatgatcatg | acgatgatac | ccgagcaa | gccagagcga | 180 |
| ccagggcctc | atgccaaaat | atcgtcagca | gaacaacatt | aaaagagaac | gcgaatgaat | 240 |
| ttacacaaca | gatccattct | tcattcttct | caagatgctc | agttatgaaa | ggagcagagg | 300 |
| cgtttcaggt | aaagcaacaa | ccacgggagc | gggagaatgg | aaagaagaga | gagacaagtg | 360 |
| ccaggaatta | cagaggagtg | aggcggcgcc | cgtaggggaa | attcacagca | gaaatcagag | 420 |
| attccgccgc | gaagggtgct | cgggtttggc | ttggaacttt | caacaccgtc | gaagaggctg | 480 |
| ctcatgcata | tgaccgcgct | gcctacagat | tccgtggagc | tcg | | 523 |

<210> 1698

<211> 471

<212> DNA

<213> Pinus radiata

<400> 1698

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgcatagcc | gagagcacc | ttatctcctc | cactctgttt | catacatgca | acaagctctg | 60 |
| gcagcagcaa | tggcggccca | gactatcatc | gctgcctcta | tggcatctcc | tctaacatta | 120 |
| tcaaattggc | actatccgtt | tcagtccgag | ttcaaggggt | ccgtggttcg | aatcccgag | 180 |
| agggcatttt | ccttcgcgcc | tgcagcccg | gcgctgaccg | tcgtcgaga | ggccaagaag | 240 |
| gccgttgccg | tgctcaaagg | gaattcacag | gtcgaggggt | ttgtcagctc | ctcgaggaa | 300 |
| gacagcggtc | ccacaacagt | gaaggctcgt | ttgacaggac | tgactcctgg | gaagcatggc | 360 |
| tttcatctac | atgagtttgg | tgacacaacc | aatggctgca | tatcaacagg | agcacatttt | 420 |
| aatccaaaaa | aattgacaca | tggtgctcct | gaggatgatg | tacgccatgc | g | 471 |

<210> 1699

<211> 483

<212> DNA

<213> Pinus radiata

<400> 1699

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| cttcctggtg | ttgttgctgt | gatttctctg | ccattctgtg | ttggggttat | ggtttttagct | 60 |
| tcactacaag | ccttttagcaa | gcctcacaaa | taagcttttg | agtaggatgt | ctcctccccc | 120 |
| gtcatattcc | atgtttccca | attcaggaat | gggcttaaat | ccctcagtga | catcttcaga | 180 |
| accctctagt | caggctctccg | gatcgatccc | ccatcaatat | tcaggctccg | aggaagaccc | 240 |
| taaactgacg | atcgatgaaa | gaaagcagaa | gagaatgctt | tctaacagag | aatctgcaag | 300 |
| gagggtccagg | atgagaaagc | aacagcattt | ggatgaattg | agagccgaag | cagctcatct | 360 |
| cagagcagag | aacagtcata | tgctaacaaa | attcaacatt | gcttcacaga | aatacatgca | 420 |
| gctggaagaa | gagaattctc | ttctgaggtc | ctatgccatg | gatttaagcc | tcaagctgca | 480 |
| gtc | | | | | | 483 |

<210> 1700

<211> 442

<212> DNA

<213> Pinus radiata

<400> 1700

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|-----|
| ttttttttga | atagaaaaaa | tataattagg | tacttttctt | tagaatgttg | cagataattg | 60 |
| catttacttt | cctaagaagc | cattgtctaa | cttttagacca | tgatatgcag | ttactgcaaa | 120 |
| gatcttgaca | aacctaacca | atcacttata | cctactgtca | agtaaataatg | taacaaatat | 180 |
| caattttcaa | tcaaagggtg | cattaagagt | tttaaccaac | aagggtgaagg | caatgaatct | 240 |
| ctagatctca | ctaacctaata | tctgctctac | ctaccaagct | agcagctctg | cttgaaatta | 300 |
| gcagaacttc | caatgggttat | tacaattttac | acatgtcaca | aatgtagtca | taggtttcatc | 360 |
| tgcaacttct | gtttgcaact | gatagtaagt | acacttccgc | tggccacatt | taccacactt | 420 |
| gaattggtct | gtttagctt | ta | | | | 442 |

<210> 1701

<211> 316

<212> DNA

<213> Pinus radiata

<400> 1701

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctaaattcat | atgctggaca | tacgtgatgt | catggcaggt | gttcttgctg | taaagaggaa | 60 |
| aagtttggcc | aaagatatct | atttcctaca | gaatgcagaa | ggttcaggct | tggctccatt | 120 |
| tgactgttgg | ctatgcttgc | gagggatcaa | aacaatggct | ttgcgcattg | agaaacaaca | 180 |
| ggagaatgca | aggaaaattg | cagaattttt | gtcatctcat | cctctgattg | agaaagtata | 240 |
| ttatgctggc | cttcctagcc | acccaggcca | caatttacat | tttttgagg | caaaaggagg | 300 |
| aggttcagtt | cttagc | | | | | 316 |

<210> 1702

<211> 329

<212> DNA

<213> Pinus radiata

<400> 1702

| | | | | | | |
|-------------|------------|-------------|------------|-------------|-------------|-----|
| ataatgtcat | attttatatc | cagagacttg | aactatttgt | atgttgtaat | tcattattggt | 60 |
| tgacatgatt | gatatgtaca | tatgttacat | ggatttagca | tgaggatgtt | gatgtttgac | 120 |
| cttattttaag | tgttcgtagg | ttgtaaaaaa | aaaaaaaaaa | aactcgagac | tagttctcct | 180 |
| cgtgccgaat | tcggcacgag | ggaacagctg | aggaagagca | agaagagggtg | ttttgcgtgt | 240 |
| aacaggcggg | tggggctgac | gggcttttaag | tgccgctgtg | gtgacctttt | ctgcgctcag | 300 |
| cacaggtact | ctgatatgca | tgactgctc | | | | 329 |

<210> 1703

<211> 325

<212> DNA

<213> Pinus radiata

<400> 1703

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcgtgccct | ggtgcaaaga | ttgttataag | aggcaagggt | tctgtcaagg | aaggtagatt | 60 |
| acagcaaaaa | cgtgatctga | aacctgatcc | atccgagaac | gaggacttgc | atgttttggg | 120 |
| tgaggcggag | acacaggatg | ctttggaaaa | agctgccggc | atggtggaga | anctgcttat | 180 |
| gcctgttgac | gaggggttga | atgagcacia | gcggggcgag | ttgagagagc | ttgcggcact | 240 |
| taatgggaca | atacgggatg | atgaattctg | caggctttgt | ggtgaaccaa | gtcataggca | 300 |
| atatgcttgc | cctacaaggc | ttata | | | | 325 |

<210> 1704

<211> 453

<212> DNA

<213> Pinus radiata

<400> 1704

| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|-----|
| cttagcgtct | atagaagagc | agggactaat | tccatctttc | tccatttcta | tttctcttcc | 60 |
| caatcaaaac | catggcgtct | aacggacagc | ttaatgcagg | cactggctgt | gttgggtgatc | 120 |
| tgaccaatgt | tggagatcga | cgattggagg | ggaagggtgc | aatagtaacg | ggcggggcag | 180 |
| cgggcatagg | agaagccatt | gttcagttgt | tcattaagca | tggagccaaa | gtcataatcg | 240 |
| ccgacgttgc | ggagaaagct | ggcagaaagc | ttgagcaatc | cctttcaccc | gctgtggcaa | 300 |
| cttacgtgca | ctgcgatgtg | agcaaagaag | aggatgtaag | cgcagcagtg | gatgtggcca | 360 |
| tcgacaagta | tgggtcaactg | gacattatgt | ataacaacgc | tggaaactaac | gacagcgttt | 420 |
| tgggtgaagag | cgtagcagag | tatgatatgg | agt | | | 453 |

<210> 1705

<211> 242

<212> DNA

<213> Pinus radiata

<400> 1705

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| gaaaagggtca | attatcctgt | gttgctacgg | aaatctaaat | attcaagggt | atggtatatg | 60 |
| ccagataaga | ttttctttac | tccaaaagct | gtcatcaaac | tggattttca | ctgtcctgaa | 120 |
| tcaaactgtt | caccagaagc | agtacttcta | acttgtattt | ttactgcatt | attggtggat | 180 |
| tattttaaag | aatacgggtg | ctataagtgg | atacagtcac | aagatgagaa | ttttactgga | 240 |
| ga | | | | | | 242 |

<210> 1706

<211> 358

<212> DNA

<213> Pinus radiata

<400> 1706

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|-----|
| gttttggggt | tctgttttta | accttgggaag | gttcaatttt | acagtttcta | cgggaattct | 60 |
| catattcaat | ctgttttgga | gattgaacta | aagatttttg | tccgggtgat | ttttggatta | 120 |
| aattcaagg | cgacgaacgt | gaggtgctag | ggctttttaga | gtttggatgg | aacctcatgga | 180 |
| catcgttggc | aagtccaagg | atgacgtctc | gcttcccaaa | gcaacctatgt | ttaaaattat | 240 |
| aaaagagatg | ctgcctccag | atgttcgtgt | tgcaagagat | gctcaggact | tactggtcga | 300 |
| gtgttgtgtg | gagtttatca | atctaataatc | ttcagaatcc | aatgaagttt | gtggcaga | 358 |

<210> 1707

<211> 334

<212> DNA

<213> Pinus radiata

<400> 1707

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| cgtttgcttg | ccgtgaaaga | aatcgaactt | ccggcgcttg | ggtgcgagaa | atatttgcaa | 60 |
| atcgaacttc | cggttggtg | gcaagaagct | tttgcgtttt | cggtttcaga | ttaaagcaat | 120 |
| atggagtcag | aggaagacaa | aatatctcca | gagaacaaga | aaaggagatt | aaaaacccca | 180 |
| cagcaggtcg | aaggctctaga | gagcttttat | gctgaacata | agtatccttc | ggaagctatg | 240 |
| aaatcacagt | tatcagaaga | actgggatta | acagagaagc | aggtacaagg | atggttctgt | 300 |
| cacaggaggc | ttaaggataa | aaggctcatg | aagg | | | 334 |

<210> 1708
 <211> 288
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| gcacgcggcag | cggtgttcct | cctcctctcc | tctcctgcat | ttctcaaact | caaatacctc | 60 |
| tcctctcaca | atcatggaag | gaggagtcgt | ctttgaatct | gtgcaaaacc | cactggatcg | 120 |
| cctgaacact | ggaaatatgg | accatggttg | tgcccattac | aggagacgat | gtcggattcg | 180 |
| ggccccttgt | tgcaatgaga | tctatgattg | taggcactgt | cacaatgaag | ccatgagcca | 240 |
| tctaaaggac | cccttgctgc | gccatgagct | ccaagatca | aaagttga | | 288 |

<210> 1709
 <211> 406
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| gttccccgtc | tcctccgtct | gctaggcatt | tctctgcgat | tcttcttctt | ctgctcgggg | 60 |
| tctctctggt | gaaatcgctc | ccgcaggagg | agggctgagg | gcagggtctcg | gctcgggtcg | 120 |
| gttcgtttcg | gcaggagtta | tctcagggtt | tttctcttgc | ttttctgcgc | cttcggactc | 180 |
| gggcttacag | ttacagcatc | tggaaaatgg | cgtcacagga | gagctcaaaa | atgcaagagg | 240 |
| aagggagtgg | gagacaagtg | ccggaagggc | ccattcactg | tttgaacaac | tgcggttctt | 300 |
| tcgggagcgc | ggccaccatg | aacttgtgct | ccaagtgcta | cagagagctt | aacgcaaac | 360 |
| caccttcttt | ttcttctcac | ttgaaacctc | agcaacctac | gcttga | | 406 |

<210> 1710
 <211> 434
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ccctcttcat | catcggcaaa | ctcattatct | cattcatcat | ttggtggaac | ctggccacaa | 60 |
| cctagtgtac | caacattgca | tcttcccggg | ggcagtcctc | aagttggtct | tcaagctagt | 120 |
| cgcctccgag | catcacttaa | tgccagagat | gtacctcttg | aggaattgac | cttagattcg | 180 |
| gattgtgaag | ggcaacttat | aaatgatttt | gcttctcttt | caggatctgg | aaacaccttg | 240 |
| atgaggtctg | gaaaatacaa | gagtcatggc | tgtagtattg | ctccagttaa | tcttgaggat | 300 |
| ctatttgctt | ctgagatgtc | tcctagggga | ccgtgccttg | aaccttccgt | gttttctcaa | 360 |
| ataagttctc | aaattcagtc | acataaggca | gctcaagttc | agcctcaggt | gcaaacatca | 420 |
| attagtaatc | agat | | | | | 434 |

<210> 1711
 <211> 387
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| tttacttaca | caccacctgg | aaatgaagat | cgtcacttgc | tattcggtga | tgagttacgt | 60 |
| ggtcgcttag | tgactcttct | agggggacgt | gctgcagagg | aagtgggtata | ctcaggtcgt | 120 |
| gtttccactg | gtgcacttga | tgatataaag | cgtgcaacag | atatggcata | caaagctgtc | 180 |

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gctgaatatg | gtcttaacaa | gtccataggt | ccaatttcat | tggcgacttt | gtctggtggc | 240 |
| ggtcttgatg | agtctggagg | agcaatgcca | tgggccaagg | atcagggaca | tatggtagac | 300 |
| cttggtcaaa | gagaggtgaa | aattttgcta | caatcggcct | tgacaatggc | actccttgtc | 360 |
| atacgtctta | atccccactgt | acttgag | | | | 387 |

<210> 1712
 <211> 440
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1712 | | | | | | |
| ctccttagcg | tctatagaag | agcaaggact | aattccatct | ttctccattt | ctattttctct | 60 |
| tccaatcaa | aaccatggcg | tctaacggac | agcttaatgc | aggcactggc | tgtgttggtg | 120 |
| atctgaccaa | tgttgagat | cgacgattgc | aggggaaggt | tgcaatagta | accggcgggg | 180 |
| cagcgggcat | aggagaagcc | attgttcagt | tgttcattaa | gcatggagcc | aaagtcataa | 240 |
| tcgccgacgt | tcggagaaa | gctggcagaa | agcttgagca | atccccttca | cccgtgtgg | 300 |
| caacttacgt | tgactgcat | gtgagcaaag | aagaagatgt | aagcgcagca | gtggatgtgg | 360 |
| ccatcgaaaa | gtatggtcaa | ctggacatta | tgtataacaa | cgctggaact | aacgacagct | 420 |
| ttttggtgaa | gagcgtagaa | | | | | 440 |

<210> 1713
 <211> 446
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1713 | | | | | | |
| ggctcttccc | ggcagaccta | gtaagccgac | tactgtaaat | ttattctttt | agggttacag | 60 |
| aagaagaaaa | tacaagatgg | gcagatctcc | ttgctgctca | aaagaagggc | tcaaccgtgg | 120 |
| ggcctggacc | aaaagggagg | atatgattct | ctccgaatac | attcgaattc | atggcgatgg | 180 |
| cggatggaga | aatatgccca | aaagagcagg | tcttaaaccg | tgtggaaaga | gctgcagatt | 240 |
| acgatggctg | aactatcttc | gccccgacat | taaacgtgga | aacatttccc | ctgatgagga | 300 |
| ggaactcata | attcggctcc | ntcgccttct | tggcaatcga | tggtcgctta | tagcaggaag | 360 |
| attaccaggt | cgaacagaca | acgaaatcaa | gaactactgg | aacactcata | tgagcaagaa | 420 |
| gctgcttcca | ttgaacgaat | ctcaac | | | | 446 |

<210> 1714
 <211> 519
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1714 | | | | | | |
| attcatttcc | gtgtaagttg | caacgcctca | ttgtttcctc | aacctagtga | gtaacattcg | 60 |
| tgaattcggt | atgcaagtag | cttgcggaag | ggcacttcta | tcatgttatt | cttattccga | 120 |
| gctactgtca | gctatatgat | ggacctgtgt | tttcatcact | ggctcacttc | acctgtttga | 180 |
| gtatctgcca | tttttgatg | tttgtgtaag | cttggctaaa | taccagagac | acaaagaaac | 240 |
| cgctctgtag | cggagttat | cgaaactatt | tacaatgcca | cgggtgaaat | ttatttccag | 300 |
| gaacttcatt | gacatgggtg | cagcattacc | ggctgcaaag | ttagatcggc | tttatgatag | 360 |
| tcatttcatt | tgcgaagcgg | ttctgaggtc | tctgactcct | gtgccaaaga | aatatgtatt | 420 |
| gcaactatta | tatattgacg | ttgcggtgcc | tgccaaatca | ctggaggaat | gggttctttc | 480 |
| agatggcctg | tctaagcaca | aagcagcaat | tgataggtt | | | 519 |

<210> 1715
 <211> 162
 <212> DNA
 <213> Pinus radiata

<400> 1715

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| cggccccgagc | aatttttgctt | ctctgctaaa | cgatgggaag | agcgccttgc | tgtgccaacg | 60 |
| gtgacagaaag | caagggagcc | tggaccaagg | aagaggatga | caggcttacc | caatatattc | 120 |
| aggctcatgg | agaaggatgc | tggcgttctc | tccccaaggg | cc | | 162 |

<210> 1716
 <211> 481
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|-----|
| <400> 1716 | | | | | | |
| gttacagtag | tgcgtacaaa | attccagtga | cattgacttg | caatctactt | ttatggagta | 60 |
| ggtagggctc | cgtgaaattg | cgcattgtcat | gaatgtgctc | gtctgtaagt | ggctgcttta | 120 |
| cgccggcgaa | ggttcggacc | ctgtgggtgg | ggatgaattga | ctgtaagagg | ccgccgatct | 180 |
| cgatcgaagg | tgtacagaga | tcattaatgg | cgatgccgat | gccgttgctt | gtgaattgct | 240 |
| ctggctgtca | gacgccactg | cagctaccgc | cgggggcgaa | gtcgatacgc | tgtgctctgt | 300 |
| gtcaagcggg | cactcatgta | gcggaacatc | acggcgatat | tccgcctcga | ggttaccgcc | 360 |
| accagcagcc | attggctcct | cccgcgggtca | gtccccagca | ctattcgccc | gctccgcctt | 420 |
| cttcccacgg | caggaagaag | gcggtcgtct | gcggcatttc | ttacagatat | tcccagcacg | 480 |
| a | | | | | | 481 |

<210> 1717
 <211> 546
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1717 | | | | | | |
| agaagtgcc | actgcaaact | ttgatttaca | ccatgctcac | tgtatacgaa | acttgcagcg | 60 |
| ctgcactgtt | tgcgggggata | tgattccaaa | aagtctgtct | atggaacacc | accaggatac | 120 |
| ccatgctcct | gtatcttggt | cacagtgtgg | cgaatccatt | gaacgtgaat | tactagtcac | 180 |
| ccatgagcgt | gacaagtgtc | ttcatagaat | tgttacatgt | ggttattgct | agtttccact | 240 |
| gccagctgtt | gatcttgata | aacatctgaa | catctgtggg | aatagaacag | agtattgtaa | 300 |
| tccgtgcagc | aagtatgtga | gattgtgtga | aaagctagct | catgatttac | agttccatga | 360 |
| aggaaattct | gatgacactg | gggattcttc | aagagagcag | cacggggaaa | ataatcacag | 420 |
| ctcaccagca | gcagaactgt | ctcggagagt | tcctagggaa | cggccacgag | atacctcgca | 480 |
| gcgtcggttg | cttgtcacat | tagcaatcac | aggaattgcc | ataattatag | gatcatttgt | 540 |
| tcttca | | | | | | 546 |

<210> 1718
 <211> 631
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1718 | | | | | | |
| tataaccgcc | tcttcttata | ctagtgcctt | tatcggttcc | attcaaactt | gctcacggat | 60 |
| tccgaccctt | cgggctaaag | ctgctgcatt | tctgtgtgta | ttgaagatgg | ggagatctcc | 120 |
| ctgctgtgaa | aaagctcata | caaacaaagg | ggcgtggacc | aaagaagagg | acgatcgctt | 180 |
| catcgcccac | attcgaactc | acggcgaagg | ttgctggcgc | tcgcttccca | aggccgcagg | 240 |
| gctgatgcgc | tgcgggaaga | gctgcaggct | ccgatggata | aactacctgc | gtcctgatct | 300 |
| gaagcgtgga | aacttctcag | aagaagaaga | cgaactcgtc | atcaaactcc | actccctact | 360 |
| cggcaacaag | tgggtctctta | ttgcaggcag | attgcccggg | cggacggaca | acgagataaa | 420 |
| gaactactgg | aatactcaca | tcaagagaaa | attgctaaac | aggggactcg | acccccagtc | 480 |
| ccatcgcccc | ctcggccagc | cgcacaacag | caacacgacc | tgcccctctc | tgcccgcctt | 540 |
| cgagcacgaa | attcttgtgt | tccagaggcc | aagaacgccg | gagatagcag | atttctttca | 600 |
| atacgagcgc | tctgaaagct | cgccgatgga | a | | | 631 |

<210> 1719
 <211> 561

<212> DNA

<213> Pinus radiata

<400> 1719

| | | | | | | |
|------------|------------|------------|-------------|-------------|-------------|-----|
| gaacgaacgg | tgaagataca | cagaggatct | ctcaacggct | tcattctccgt | cgctcgtctct | 60 |
| cctccttcca | tctccagcgt | ccgatctgat | cttatcaaag | gaagccctta | aatccctcca | 120 |
| gctttccaag | cgcgggttct | gttgctgtat | cccagggtccc | tggatcatatg | gcggaagctg | 180 |
| gcagcccggg | cagccaggaa | agtcctcgtt | ccggggaaca | aagccccag | tccagcgtgc | 240 |
| gggagcagga | caggttccta | cccatcgcca | acattagccg | catcatgaag | aaggcgtgc | 300 |
| cggccaacgg | caagatcgct | aaagacgcca | aggagaccgt | gcaggagtgt | gtctcggaat | 360 |
| ttatcagctt | catcaccagc | gaggccagt | acaaatgcc | gcgagaaaag | aggaagacaa | 420 |
| tcaacggcga | tgacttgctc | tgggccatga | gcacgctagg | gtttgaagat | tatatcgagc | 480 |
| ccttgaaggt | ttacttgctc | atgtacagag | aggcggagg | tgacaataag | ggatcttcaa | 540 |
| aatctggagt | agaccaatat | g | | | | 561 |

<210> 1720

<211> 497

<212> DNA

<213> Pinus radiata

<400> 1720

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| ttattttgca | gcatcgagag | gcagcagcta | cggactaatc | gatccatcat | agccattttt | 60 |
| aatttcgctg | cccaatcgaa | ccatggagtc | taaggacag | gctaattccat | ctgttgcttc | 120 |
| tggttgtaat | ctcagcaaga | atggagagcg | acgattggaa | gggaaagtgt | ttatagtaac | 180 |
| gggcggggca | gcgggcatag | gagaagccat | tggtcagctg | ttcgcaaagc | acggagcgaa | 240 |
| agtcataatc | gcagacgttg | cagagaaagc | tggcagaaag | cttgcagaat | ccctttctcc | 300 |
| agcatcggca | acttatgtgc | actgtgatgt | cagcaaagaa | gaagacgtga | gcgcggtgt | 360 |
| ggatctggct | atggataagt | atggtcaact | cgacattatg | tataacaacg | ctggaactaa | 420 |
| cgacagcttt | ctggtgaaga | gcgtggcaga | gtatgatatg | gagcaattcg | atcgagtgat | 480 |
| gaacgtaaac | gtgaaag | | | | | 497 |

<210> 1721

<211> 394

<212> DNA

<213> Pinus radiata

<400> 1721

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aataaattgg | gttgcaaagc | tttccagttg | tttgccagca | ttgaggtggc | tgagacttga | 60 |
| agaaagtgt | caacaatttg | ctgtctttat | gttgtctcaa | gtcgatcttt | ccagagaagc | 120 |
| tgcacacttg | aaccgctttc | tttacaattt | tcgcaggtgg | aaagatgtgt | catttcctaa | 180 |
| gcccttgtag | ccacttgtag | acccggcagt | tttggtggag | acttatgaac | aaggcgagag | 240 |
| tgtggcacgc | tatggtgatc | agccagaagc | aaaccatagt | tttaatagat | cacttgctca | 300 |
| cactggcacg | catactctcc | tcaagatgct | actggtggat | aatttcatcc | atgcagatat | 360 |
| gcatcctgga | aatattttgg | ttcgaatggg | acaa | | | 394 |

<210> 1722

<211> 394

<212> DNA

<213> Pinus radiata

<400> 1722

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| taaggctaag | cagaccagag | gagggtgaagg | agaaaaaaga | aacaatggct | ggaataggac | 60 |
| cgattagtca | ggattgggaa | cccgttgtca | tcaggaagaa | ggctcctaac | gctgcagcca | 120 |
| agaaggacga | gaaggctgtc | aatgctgccc | gtcgaactgg | aggccctatt | gaaactatca | 180 |
| agaaatttaa | tgaggatca | aacaaagcag | cctcgagcag | caccaccttg | aacaccaaga | 240 |
| agcttgatga | tgagacagaa | gttctcgtc | atgaaagagt | ttcatcagat | ttgaagaaaa | 300 |
| acataatgca | agcccgttta | gataaaaagt | tgacacaagc | ccagcttgca | cagcaaatca | 360 |

atgaaaaacc tcagattatt caagagtacg agtc

394

<210> 1723
<211> 317
<212> DNA
<213> Pinus radiata

<400> 1723
gattcttctt cttctgctcg gggctctctt ggtgaaatcg tccccgcagg aggagggctg 60
agggcagggc tcggctcggc tcgggttcgtt tcggcaggag ttatctcagg gtttttctct 120
tgcttttctg cgccttcgga ctccgggctta cagttacagc atctggaaaa tggcgtcaca 180
ggagagctca aaaaatgcaag aggaagggag tgggagacaa gtgccggaag ggcccattca 240
ctggttgaac aactgcggct tcttcgggag cgcgccacc atgaacttgt gctccaagtg 300
ctacagagag cttaacg 317

<210> 1724
<211> 265
<212> DNA
<213> Pinus radiata

<400> 1724
cggattccga cccttcgggc taaagctgct gcatttctgt gtgtattgaa gatggggaga 60
tctccctgct gtgaaaaagc tcatacaaac aaaggggctg ggaccaaaga agaggacgat 120
cgcctcatcg cccacattcg aactcacggc gaagggtgct ggcgctcgt tcccaaggcc 180
gcagggtgta tgcgctgcgg gaagagctgc aggctccgat ggataaacta cctgcgtcct 240
gatctgaagc gtggaaactt ctacg 265

<210> 1725
<211> 284
<212> DNA
<213> Pinus radiata

<400> 1725
caagagtaaa cccgaaggaa tagaagggga aggaggcatc ggcagcgttg ttcctcctcc 60
tctcctctcc tgcatttctc aaactcaaat acctctctc tcacaatcat ggaaggcgga 120
gtcgtctttg aatctgtgca aaaccactg gatcgctga aactggaaa tatggaccat 180
ggttgtgccc attacaggag acgatgtcgg attcggggcc cttgttgcaa tgagatctat 240
gattgtaggc actgtcacia tgaaaccatg agccatctaa agga 284

<210> 1726
<211> 308
<212> DNA
<213> Pinus radiata

<400> 1726
caaaccgcca agtgagcttc atatctaacc aataataaca cctgtatagc ttcacagcaa 60
cagggcacca tgggccgagc tccttgctgt gataaaatgg gagtaaagaa agggccctgg 120
actctagacg aagataaaat actggctcgac tacattacca aacatggcca tggcaactgg 180
cgtgcactgc ccaagcaagc agggctcctg cgatgtggaa agagtgtcgc cctgcggtgg 240
acgaattacc tgaaaccgga catcaaaaga gggaatttta gtccagaaga ggaagatcaa 300
attattaa 308

<210> 1727
<211> 338
<212> DNA
<213> Pinus radiata

<400> 1727
gacgagcggg tgttcattaa gcatggagcc aaagtcataa tcgcagacgt cgcggagaaa 60
gctggcagga agcttgagga atcactttct cccgctgtgg caacttacgt gcactgcat 120
gtgagcaaaag aagaagatgt gaccgcggcg gtggatgtgg ccatggataa gtatggccaa 180
ctggacatta tgtataacaa cgctggaact aatgacagct ttttggtgaa gagcgtggta 240
gagtatgata tggagcaatt cgatcgagtg atgaatgtaa acgtgaaagg agtgatgcac 300
ggcattaagc accccgcccc cgttatgatc ccgcggaa 338

<210> 1728
<211> 350
<212> DNA
<213> Pinus radiata

<400> 1728
gcacgaggtt ttaacatctt ttgttgatat ccagaggctt gatgatgtga aaaatgccat 60
aacaccatct accaaggttt tgtattttga atctatctca aacccaactc tggcagttgc 120
agacatccca tctctgtctg ccattgctca tgagaaaaat gtcaagggtg tggttgataa 180
taccttttct cccatgatca tatccctgc aaagcttggg gctgatgttg ntattcacag 240
catttcaaaa tatatcagtg gaggtgctga tgttatagca ggagcaatat gtgggcctgc 300
agatctgata aattccatga tggatctcca tcagggaacc ttgatgctct 350

<210> 1729
<211> 333
<212> DNA
<213> Pinus radiata

<400> 1729
ccagtccatg gtttcaagtt agttagtcca ataaagcaga gatgggtcgt gctccatgct 60
gcacaaaagt tggctcctaac aaggagcat ggtctgccga agaggatagt cttctgggaa 120
gatataattca aactcatggt gaaggcaatt ggaggtctct gcccaagaaa gcagggctgc 180
gaagatgtgg aaagagctgc agattgcgtt ggctaaacta tcttcggcca tgtatcaagc 240
ggggaatat tacaacagat gaagaagaac ttattatcag aatgcatgct ctcttgggca 300
accgatggtc gataatagca gggagagtcc ccg 333

<210> 1730
<211> 508
<212> DNA
<213> Pinus radiata

<400> 1730
ctngtgccga agaaatctga atcgctcgct tcgtggctga caggaagcca cagtgggcgg 60
cctgagaaaac tggttgtggt ggtcgggagt gtcaagattg tgacggtggg cggaccagcg 120
tctagtttgt gttgggtggc ggcattagaa ggggcagagg gggcttttca gtgcatggga 180
ttatgggcaa cgaaggcgcg gcatcgatgc ggctatgggg cgacgataat aattccatga 240
tcgaggcttt catggggaac ctcgattact cttactccac cttctggaat ggcacgatg 300
ccaatccctc ttcgctaccc tcgcccga cttcccgctg tctgccgcag tgttgctatc 360
gccacgccc tcaatcagga cacgctgcag caacgcttgc tggcgtttgt ggaggagcg 420
gctgagtgct ggacttatgc catattctgg cagttgtcga gcgatgccag cggcggctcg 480
gagcttgtct ggggcgacgg gtactaca 508

<210> 1731
<211> 411
<212> DNA
<213> Pinus radiata

<400> 1731
cggagtgaat tcatttgctg ccgtcactgc tgccaagggtt tgttactgtt agattttgtt 60

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| atancggaca | atggcttcaa | cagacataga | tatgattccc | gtgccctctg | gcgaggggttc | 120 |
| cagctctcaa | gcgggaccaa | gcgcttccac | caagaaggcc | aaacgtttcg | aaatcaagaa | 180 |
| gtggaatgct | gtagcccttt | gggctgtgga | tattgtgggt | gataattgtg | caatttgcag | 240 |
| aaaccacatc | atggacctct | gtattgagtg | tcaggcaaat | caagcaagtg | caacaagtga | 300 |
| agaatgtact | gttgcctggg | gtgtttgcaa | tcacgccttt | catttccatt | gcataagtcg | 360 |
| gtggctcaag | acacgacaag | tctgcccatt | agataataag | tgagtgggag | t | 411 |

<210> 1732

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1732

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| cgaaactcga | atcgatatgc | tttgtggccg | gttcaaatat | ttgagctggc | ttagcttctc | 60 |
| tggttcagaa | atggcggact | aaagtaatag | tgtgccccga | ggctctgggt | tcgaatctcg | 120 |
| ttggcgtgaa | aggtcaaatt | tttctctcga | gtttcattga | ttctgaaaaa | ctggcatagc | 180 |
| tatggcgatg | agcaatggga | gattgtgtga | agatttggat | aggattaagg | ggcccggtga | 240 |
| gccccgagga | ggacgcgtcg | ctgcagaggc | ttgttcagaa | atacgggccc | aggaactgga | 300 |
| ccctgataag | taaaggaatc | ccggggcgat | ccgggaaatc | gtgcaggcta | cgggtggtgca | 360 |
| atcagctgac | cctcaggtgg | agcacagacc | | | | 390 |

<210> 1733

<211> 277

<212> DNA

<213> Pinus radiata

<400> 1733

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| atttactgga | accattgttg | gaataagtga | tgctgacctt | gtgaactggc | cgaattcaaa | 60 |
| gtggagatgc | ctcaaggtag | aatgggatga | aatatcagca | attgcacgac | cagagagagt | 120 |
| ttccccgtgg | aaattagaac | cttcattaac | tccagtggca | gtgaatcctc | tgccagtagc | 180 |
| caggggcaag | aggcctcggc | caaatatatt | accttcatct | tccgatttat | cagtgcattga | 240 |
| caaggcccca | gtggattcta | ctcaggtgca | caggttt | | | 277 |

<210> 1734

<211> 221

<212> DNA

<213> Pinus radiata

<400> 1734

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gttgcaggga | agggttgccg | tgatcacagg | aggcgccagt | ggaatcggag | aggctaccgc | 60 |
| caagttgttc | gtggagaatg | gagcgaaagt | agtgattgca | gaccttcagg | acgaccatgg | 120 |
| aaaccgtctt | gctcaatccc | tcgctcccaa | cgctgtcttt | ttccactgcg | atgtctccaa | 180 |
| agaggcggac | gtttccgccc | tgctggactt | ggcgctggag | a | | 221 |

<210> 1735

<211> 316

<212> DNA

<213> Pinus radiata

<400> 1735

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| tgggctgttc | ccaggagagg | agagcctcag | ctgtctcgat | ctggcggttaa | ggggttacag | 60 |
| aagaagaatt | tcgaagatgg | ttagatcttc | ttgctattca | aagcaaggtc | ataggcgtgg | 120 |
| gatttggacc | cctatggagg | atatgattct | ctctgaatac | nttcgaattc | atggcagtga | 180 |
| tggatggaaa | aatatcgcta | aacgagcagg | tcttaaacga | tgtggaaaga | gttgcagatt | 240 |
| accgttgggt | gaactatctt | cgccccgaca | ttaaactgtg | taacatttct | cctgatgagg | 300 |
| aggacctcat | tattag | | | | | 316 |

<210> 1736
<211> 464
<212> DNA
<213> Pinus radiata

<400> 1736
cagcatcgtg gctcttcccc gcagacctag taagccgact actgtaaaatt tattcttttta 60
gggttacaga agaagaaaat acaagatggg cagatctcct tgctgctcaa aagaagggct 120
caaccgtggg gcctggacca aaagggagga tatgattctc tccgaatata ttcgaattca 180
tggcgatggc ggatggagaa atatgcccac aagagcaggt cttaaaccgg gtggaaagag 240
ctgcagatta cgatggctga actatcttcg ccccgacatt aaacgtggaa acatttcccc 300
tgatgaggag gaactcataa ttcggctcca tcgccttctt ggcaatcgat ggtcgcttat 360
agcaggaaga ttaccagggtc gaacagacaa cgaaatcaag aactactgga acactcatat 420
gagcaagaag ctgcttccat tgaacgaatc tcaacccaag actt 464

<210> 1737
<211> 361
<212> DNA
<213> Pinus radiata

<400> 1737
aaggaggcat cggcagcgtt gttcctcctc ctctcctctc ctgcattttct caaactcaaa 60
tacctctcct ctcacaatca tggaaggcgg agtcgtcttt gaatctgtgc aaaaccact 120
ggatcgcttg aacactggaa atatggacca tggttgtgac cattacagga gacgatgtcg 180
gattcggggc ccttggtgca atgagatcta tgattgtagg cactgtcaca atgaagccat 240
gagccatcta aaggaccctt tgctgcgcca tgagctccca agatacaaag ttgaacgggt 300
tatttgttct ctctgtgaca ctgagcaaaa tgtcaagcaa gtttgcgaaa actgtggtgt 360
t 361

<210> 1738
<211> 371
<212> DNA
<213> Pinus radiata

<400> 1738
gcttttctgt ttcattcgat ttcgattgtg tagtgaagag catggccgaa caggtcttgg 60
aaggagtgca gccagtggat ctcgagaagc atccttcagg catcggtccc accctccaga 120
atatagtgtc cactgtaaac ttggattgca aattggactt gaaagccatt gctcttcaag 180
ctcgaaatgc agagtacaat cccaagcgtt ttgcagcagt cataatgaga ataagggagc 240
ccaaaactac agcactgata tttgcatcag ggaagatggg ttgcacaggt gcaaaaagtg 300
aacaacagtc aaaacttgct gcaagaaagt atgctcgtat tatccaaaaa ttgggcttct 360
ctgctcattt c 371

<210> 1739
<211> 589
<212> DNA
<213> Pinus radiata

<400> 1739
gtctcagggt aacgaaaaat gggaagggtga caatatggct gcatggctca ctggaataaa 60
cactcttcgc atccagccct tcaaacttcc gcctcttggc ccccatgatg cgaaggtgctg 120
catgaaggct gtgggtatct gtggcagtga cgtccactat ttgaggacat tacgggtgtgc 180
ggactttatt gtaaaagagc caatggtgat tggatcatgag tctgctggaa taattgagga 240
ggttggcagt gaagtgaac atctggttcc tggtgaccgc gtagcttttg agcctggaat 300
atcgtgttgg cgttgtgacc aatgtaagcg aggctcctac aatttgtgtc ccgagatgaa 360
gttttttgca acacctccc tgcatgggtc cttggccaat cagattgttc atcctgcaga 420
tttatgtttc aagttgccag ataagtgaag tctcgaggaa ggtgccatgt gtgaaccact 480

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cagtgttggg | gttcatgctt | gtcgccgtgc | ttctgtaggc | cctgagacaa | atgtcttggg | 540 |
| aatgggggca | ggtcctatcg | gccttgtcac | cggtgctgtc | gcacgtgca | | 589 |

<210> 1740
 <211> 473
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| <400> 1740 | | | | | | |
| ctttgccgtg | ttcgggttcgt | attcaggggt | tcgggagcct | gttgtgtggg | gttctgcagg | 60 |
| tcaggacatt | gtaggcctgg | ttatacaaga | tttcgaagca | aactctcgga | gcctcgaaga | 120 |
| atcggcgcaa | atttcaacgg | ccttataact | atttggaag | cagtactctg | gatttttctc | 180 |
| ccggaacgga | tcggagtggt | ggaagcgtaa | taatcgccgt | gaatttgtct | tctgcaagat | 240 |
| aatattcaat | taatctattg | tcgaaggaaa | tttgagccgt | ataagaggat | aatcaaaaga | 300 |
| agccggttga | ttttcccggt | attaaaaggat | ggatcaagaa | aactggaaca | tcggagctga | 360 |
| tggcactggc | tgccaagctc | cagaagggca | cactctttgc | gccataaact | gcggcttttt | 420 |
| tggcagtctg | gcaacgagaa | acctgtgttc | gaaatgttac | agggatctga | tta | 473 |

<210> 1741
 <211> 546
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1741 | | | | | | |
| atccaaataa | tacaactatc | tttgtgggtg | gcttagaccc | aactgtgaca | gatgatatgc | 60 |
| tgagatcatt | atttggtcag | tttggaagaa | ttgtgcatgt | caaaatacca | gtgggaaaac | 120 |
| gttgtggatt | tgttcagttt | aataacaggg | cttctgcaga | ggaagcattg | caaatgctgc | 180 |
| atggtacagt | tcttggtcag | caagccattc | gtctttcctg | gggacggagt | cctgcaaaca | 240 |
| aacaaactgc | tgggtgggtt | caaccccaac | aaccagatcc | aatcaatgg | aatggagctt | 300 |
| attatggtta | cggacaagga | tatgatgcag | gttatggtta | tgaccacaaa | cctcaggatc | 360 |
| ccaatatgta | cagtttatgcc | ccttatgcat | atggaaatta | tcagcagcag | taacattttac | 420 |
| ttgggttcag | gctcttctgt | ggacgtgtaa | atatgggttc | attcatagag | ctgtctctgt | 480 |
| aaacagtgtg | ttttaacggg | catccagtca | acttatctat | attaaattta | atgaagagga | 540 |
| aagtct | | | | | | 546 |

<210> 1742
 <211> 348
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1742 | | | | | | |
| agcaacctac | gcttgagcag | ccgaatgcga | agcaccatc | gattccgctt | ccctcggcgt | 60 |
| tggtgccctc | aagtagcgac | gttccaatgg | tggaagcagt | agcagcagcg | gagacggcca | 120 |
| ttggcaccgc | tccatccagc | tcggcagaac | aggaggtgga | gaaacatgaa | caggacgagg | 180 |
| aggaacagct | gaggaagagc | aagaagaggt | gttttgcgtg | taacaggcgg | gtggggctga | 240 |
| cgggctttaa | gtgccgctgt | ggtgaccttt | tctgcgctca | gcacaggtag | tctgatatgc | 300 |
| atgactgctc | ttttgactac | aagactgccg | gccgcctcgc | cattctca | | 348 |

<210> 1743
 <211> 300
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1743 | | | | | | |
| cgaccatgct | tcaagtgctg | tcatgggtgg | tgtgtcatca | gcccctcaaa | ttatgntgct | 60 |
| catgaaggca | ggctatatgt | taggcacatc | agctctcaac | tttttaggga | gaaaggtaac | 120 |
| ttcagccanc | tttcaaaggc | aacacctaca | aaaggggtga | ctgataactc | agacacagac | 180 |

<400> 1748
 ttcggtcggg gaattgtggg tgggagcccc accggaggag tganggaaac tcaagagatg 60
 ttggactttt gtgcagagca taacatcagt tgcattgattg aaaacattgc aatggattac 120
 cgtgaacaca gcaatcgaac gatta 145

<210> 1749
 <211> 206
 <212> DNA
 <213> Pinus radiata

<400> 1749
 ctggtgtgaa tcacatcggg gatggcattc gcaggaacac agcanaagtg caaggcatgc 60
 gagaagacgg tgtacgtggg ggatcagctc acagccgatg gttcagtctt tcacaaggcc 120
 tgcttccgct gccatcattg caatggcacc ttaaagctca gcaactattc ttcttttgaa 180
 ggggtgctgt actgcaaacc tcattt 206

<210> 1750
 <211> 263
 <212> DNA
 <213> Pinus radiata

<400> 1750
 gttaaatttg accccttcaa tgcgtttttat ggttcagcct ctatgttaat ttgacacagt 60
 gagctgaaat attgctggctg gatgtgtaca ttcacgacta tctcataaaa cggaatcttc 120
 ttgcatctgc caagacattt atgacggagg caaaagtttc tccagaacca gtcgcaattg 180
 atgcacctgg aggcctttttg tttgaatggg ggtctgtgtt ttgggatatt ttcattctac 240
 ggacaaatga gaagcactct gag 263

<210> 1751
 <211> 321
 <212> DNA
 <213> Pinus radiata

<400> 1751
 ccaatatggg ggcagatagt atgggttctg ttcacactcc tgaagttatt gagcattctt 60
 ctacaaaagt ttctattgat acagctgggt caatggatgt ggatgcagca tccaagtgc 120
 atcacgttta cagaactaca tctctcaacc actgtgtctc ttcctcccc atagatgttg 180
 gaattgtacc tgacagcaac attacatctg atatttcaac accttaccat gacccaagag 240
 gagtattcga gattcctcct cgggttggtc atcctggagg ccaaggtgag gtcattggaa 300
 gagaagcaag agttctcaga t 321

<210> 1752
 <211> 316
 <212> DNA
 <213> Pinus radiata

<400> 1752
 cggccccgagc aatttttgctt ctctgctaaa cgatgggaag agcgcttgc tgtgccaacg 60
 gtgacagaag caagggagcc tggaccaagg aagaggatga caggcttacc caatatattc 120
 aggctcatgg agaaggatgc tggcggttctc tccccaggc cgcaggctctg cttcgggtgtg 180
 gaaaaagttg caggctgaga tggataaatt atcttcgccc tgatctgaaa cgaggaggtt 240
 tttctgaaga tgaagacgat cttattctca aactgcacgc cctcctcgga aataagtggt 300
 ctctgatagc gggtcg 316

<210> 1753
 <211> 335

<212> DNA

<213> Pinus radiata

<400> 1753

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| attgagtaaa | acttcattca | gttggattct | catcgttttc | atggcttaca | acccgcaaac | 60 |
| atgccgccgc | cgccaccagc | ccggacagca | gcctgggctc | agacaacgag | tccggcggcg | 120 |
| gaggaggagg | cggcggagga | gaagggcagt | cgacgaagaa | tggcaatggc | aactacatta | 180 |
| gagagcagga | tcgcctgctc | cccatagcga | acgtggggcg | gataatgaag | cgggcgctgc | 240 |
| ggggaatgcg | aaaatctcca | aagacgcgaa | ggagacgggtg | caggaatgtg | tgctggagtt | 300 |
| catcagcttc | attaccggcg | aggcctctga | caagt | | | 335 |

<210> 1754

<211> 349

<212> DNA

<213> Pinus radiata

<400> 1754

| | | | | | | |
|-------------|-------------|------------|------------|-------------|------------|-----|
| cacacagaag | cttgtccgat | ggcgatcacg | caggggaaat | ggctacaggt | gaatcagaag | 60 |
| gaaggggggc | caaaagcgcg | gagctcccat | gcagttgcag | tgggtgggaaa | aaaggcgtat | 120 |
| gtgttcgggtg | gagaggtgga | gccgcgcgtg | ccagtggaca | atttgatgca | tatcttggat | 180 |
| ctggaggaca | attcctgggtc | cgtggcggat | gccaagggag | aggcaccgcc | tcccagagtg | 240 |
| ggggtcacca | tggtccctat | cggctctgtt | atztatctct | tcggtgggtcg | agaccagcat | 300 |
| cacaaggagc | tcaaccattt | ctattccttc | gatacnaatt | cctgccagt | | 349 |

<210> 1755

<211> 289

<212> DNA

<213> Pinus radiata

<400> 1755

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| tcttaatgcc | ctaaaggagc | ccagcaagaa | gatcgacggc | cgcattgactg | tcagtcagtt | 60 |
| ggcctctgct | ggttcacagc | ctgcccagcc | ggcggctgat | gtatctgccc | ggaaaatcta | 120 |
| tgctcggaat | gttcccatgg | acatggcggc | agatcgccctg | ctgagccttt | tttctcagta | 180 |
| tggagagatc | gaagaggggc | cactaggggt | tgataagcaa | tcgggcangt | caaggggttt | 240 |
| tgcgcttttt | attttcaagt | cangtggacg | caactaagcg | tgcgttgga | | 289 |

<210> 1756

<211> 235

<212> DNA

<213> Pinus radiata

<400> 1756

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| agagtatgat | cctgttgcta | aaatttcaat | cattcctcgt | ggacaagctg | gaggtctgac | 60 |
| attctttgct | cctagtgaag | agagactgga | atctgggctt | tacagcagaa | gttaccttga | 120 |
| gaatcagatg | gcagttgccc | tcggtggaag | ggtggcagaa | gaagttattt | ttgggaaaga | 180 |
| aaatgtcaca | acaggagcat | cgaatgactt | cccacaagta | tctcgtgttg | cccg | 235 |

<210> 1757

<211> 457

<212> DNA

<213> Pinus radiata

<400> 1757

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| gtaggatgga | aggcacgggt | aagagattca | aagggaaggt | ggcgggtggtg | accgcttcaa | 60 |
| cacagggcat | aggattcgcc | attgcacagc | accttggcct | cgaagggtgct | tccgttgtcg | 120 |
| tctcttcacg | caaaaagaac | aatgtagagg | aagcagtgga | aaagatgaga | gccaaagggg | 180 |
| ttgatgttct | gggagtggcc | tgccatgttt | ccagtcgaga | acagaggagg | gatctcatcc | 240 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaaagactgt | agataaatat | ggtcacatag | acattctggt | ctcaaagtca | gctgctaate | 300 |
| caactgtgaa | gccattgtt | ttagttccag | agcctgtact | tgataaaatt | tgggagatta | 360 |
| atgtcaaggc | cactattctt | cttgtccagg | aagctgctgc | tcacttgtca | caagagtcac | 420 |
| caattatcat | aatttcatca | gttgctgctt | acagacc | | | 457 |

<210> 1758
 <211> 345
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1758 | | | | | | |
| catgtctttg | attcggggcaa | gcagacatgg | agtaagccta | tggtgaaagg | aaccccgccc | 60 |
| tctcccagg | acagccacag | ctgtaccact | gtgggaacaa | acttgtttgt | atttgggtggc | 120 |
| acagatggga | agaaccctct | acgggatttg | catatgctgg | acactactac | aaatacatgg | 180 |
| gtgcaacct | acgtaagtgg | tgaaggaccg | gcagctcgtg | aggggcacag | tgctgcactc | 240 |
| attgatcacc | gtctttttat | atttgagggt | tgtggaaaag | ttcaagatga | atctgaagag | 300 |
| atatattaca | acgaccttta | catactagac | acagttaact | taatt | | 345 |

<210> 1759
 <211> 544
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1759 | | | | | | |
| gagcaacca | cattgcattg | attgcactac | agtttcagcg | atthttcaggt | catctcaggt | 60 |
| gtgcagctta | agcttattct | cttgaaaata | tggtctagga | aggagagaag | gtcatggtaa | 120 |
| acgtttatga | tctaagccaa | ggacttgctc | gtcaactctc | aactactttt | cttggaagag | 180 |
| ccattgaagg | aatttggcat | accggtgtgg | tagtttatgg | gaaggagtat | tactttgggg | 240 |
| gtggtattca | acacagccct | acagggcaaa | ctccatattg | aaaaccgtgg | aaagtgggtg | 300 |
| agttgggtgt | cactcacgtt | ccgatggaaa | tgtttgaaga | attcctggaa | aaaataagcc | 360 |
| ctcgctatac | agcttaaaca | tatagtttgg | tgaccataaa | ctgtaacaac | ttcagcgatg | 420 |
| aggttgacaa | gtttttgggt | ggctgcaaca | tcccagattt | catccttagg | ctcccacaag | 480 |
| aagtgatgaa | cagcccaatg | ggccctttta | taatgcccat | gataatgcag | tttgaagcta | 540 |
| ctct | | | | | | 544 |

<210> 1760
 <211> 375
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1760 | | | | | | |
| cgatagccga | gagcaccctt | atctcctcca | ctctgtttca | tacatgcaac | aagctctggc | 60 |
| agcagcaatg | gcggcccaga | ctatcatcgc | tgctctatg | gcctctctct | taacattatc | 120 |
| aaatggccac | tatccgtttc | agtccgagtt | caaggggtcc | gtggttcgaa | tcccgcagag | 180 |
| ggcattttcc | ttcgcgcttg | cagcccgggc | gctgaccgtc | gtcgcanagg | ccaagaaggc | 240 |
| cgttgccgtg | ctcaaaggaa | attcacaggt | cgaggggtgt | gtcaatctct | cgcaggaaga | 300 |
| caacgggtcc | acaacagtga | aggtccgttt | gacaggactg | actcctggga | agcatggctt | 360 |
| tcactctacat | gagtt | | | | | 375 |

<210> 1761
 <211> 333
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1761 | | | | | | |
| tttatatttt | tacaatccga | ggttgcaggg | actttcagag | aggtcgatac | cgtggaaaag | 60 |
| actgagattg | acggatcgat | tgcaatggcg | tttgcggaag | agtattccga | tcgcatgccc | 120 |

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| gtatttcaaaa | agctgaaggc | gaagtctgaa | aacaagattt | gttttgattg | caatgctaaa | 180 |
| agtcccagtt | gggccgtccg | tgacatatgg | agtattcatt | tgtcttgatt | gttcagcaat | 240 |
| gcatcgaggt | cttgggtgttc | atgtcagttt | tggaggtcta | caaatctcga | tacatggacc | 300 |
| atggagcagt | tgaaattgat | gagctttggt | ggt | | | 333 |

<210> 1762
 <211> 331
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1762 | | | | | | |
| ctcgtgcccc | actataggcc | gcaccaccct | cagccgtttc | ttctttgcct | ctcttcttct | 60 |
| tgtgggcat | gtgacctatg | gcctattcat | tttctgcact | ggatctgaga | gcgaggggga | 120 |
| agttaacgag | agccctggct | ccacgaattt | tgaaggcggc | gcggncatat | gcgagagcag | 180 |
| cctcttcggc | ggtgatgaaa | gngccgagcc | aaactctggt | cctcttggcg | gggtctctga | 240 |
| tttcagctgc | gaatttacc | cacggccgct | gccggactcc | tctgtagcgc | ctagctccgc | 300 |
| tcactctgct | catctctcca | ctctgctctt | c | | | 331 |

<210> 1763
 <211> 568
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|-------------|-------------|-------------|-----|
| <400> 1763 | | | | | | |
| ccggccgccc | cctccgacct | gcctgatgga | acacagtggc | gctacagcga | gttcttgaac | 60 |
| gccgtgaaga | agggtaaggt | ggagcgcgtc | cgcttcagca | aggacggcag | ctacctccaa | 120 |
| ctgagcgccg | tcgatgggag | gcgtgccact | gtaaccctgc | caaacgaccc | ggacctgggtg | 180 |
| gacatccttg | cgatgaatgg | tgtggacata | tcggtttccg | agggggaggc | gagcaatggc | 240 |
| ctctcagcg | taatcggtaa | tctttttattc | ccaatttttag | ccttcggggg | tttattcttc | 300 |
| ttatttcggc | gggtcaggg | aggccctggg | ggtcccggag | gtttgggagg | ccctatggac | 360 |
| ttcggtcgct | ctaagtccaa | gttccaggag | gtgcccggaga | ctggagttac | atttgccgac | 420 |
| gtggcaggcg | ctgaccaggc | caagctggag | cttcaggagg | tgggtggattt | cttgaaaaac | 480 |
| cctgataagt | atactgccct | tgggtgccaag | atcccccaagg | gatgcttggt | ggtaggtccg | 540 |
| ccggggacgg | gcaagactct | actggccc | | | | 568 |

<210> 1764
 <211> 351
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1764 | | | | | | |
| gagaaggaag | ctgctcttgc | tgccacacca | ccagaagatg | ataaacctac | aatatttgac | 60 |
| acaatactgc | agaaggagat | tcccagtaca | gtggtttacg | aggatgagaa | ggtacttgca | 120 |
| ttcagggata | tcgcacccca | agcacctact | acatcattat | catccccaaa | gtaagggatg | 180 |
| gcttgactgg | cctatctaag | gcagaagaga | ggcatgagga | tatttaggtc | acctgctata | 240 |
| cactgcaaaa | gttattgcaa | agcaggaagg | tttatctgat | ggcttcagaa | ttgtcattaa | 300 |
| cgatggtcct | actggatgcc | aatctgtgac | catttacata | ttcatctact | c | 351 |

<210> 1765
 <211> 462
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1765 | | | | | | |
| tgtaaattta | ttcttttagg | gttacagaag | aagaaaatac | aagatgggca | gatctccttg | 60 |
| ctgctcaaaa | gaagggtca | accgtggggc | ctggaccaaa | agggaggata | tgattctctc | 120 |
| cgaatacatt | cgaattcatg | gcgatggcgg | atggagaaat | atgccccaaa | gagcaggtct | 180 |

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| taaacggtgt | ggaaaagagct | gcagattacg | atggctgaac | tatcttcgcc | ccgacattaa | 240 |
| acgtggaac | atctccctg | atgaggagga | actcataatt | cggctccatc | gccttcttgg | 300 |
| caatcgatgg | tcgcttatag | caggaagatt | accaggtcga | acagacaacg | aaatcaagaa | 360 |
| ctactggaac | actcatatga | gcaagaagct | gcttccattg | aacgaatctt | aaccagact | 420 |
| ttgctgtcc | ccaaaaagag | gtcgcaatct | tcttctccct | gc | | 462 |

<210> 1766
 <211> 532
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1766 | | | | | | |
| gtaaaaatga | ccacggcgtg | gacttctgga | acnccccgga | gcgttcagga | tggttgatga | 60 |
| agcagggcga | gtacatcaaa | acatggaggc | gcagatgggt | tggtctaaag | cagggaaagc | 120 |
| tcttctgggt | caaggaaaat | tacatcacia | gggattctaa | tccccgtgg | gttggtccgg | 180 |
| tgagcacctg | cctgactgtc | aagggaagcc | aagacgtcct | caacaagcca | ttcgcttctg | 240 |
| agctctcgac | gagcagagag | accatgtact | tcatcgcaga | cagcgataag | gagaaggagg | 300 |
| agtggatcaa | ttccatcggc | cgctccatcg | tacagcattc | caggtcagtt | acagacaagg | 360 |
| agatcgntga | ttatgatagc | cagcgtgccg | ataaatgaat | acccaattcg | aatcggtatg | 420 |
| attcgctgta | aattgggttc | aattaggggt | tctaggggtt | tcttttgaat | tttgtgatgg | 480 |
| aacgccttaa | atcggttgct | cattgcattt | ctaggatgaa | tcttaataaa | tt | 532 |

<210> 1767
 <211> 354
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1767 | | | | | | |
| aaccgcctct | tcttatacta | gtgcctttat | cggttccatt | caaacttgct | cacggattcc | 60 |
| gaccttcccg | gctaaagctg | ctgcatttct | gtgtgtattg | aagatgggga | gatctccctg | 120 |
| ctgtgaaaaa | gctcatacaa | acaaaggggc | gtggaccaaa | gaagaggacg | atcgctcat | 180 |
| cgccacatt | cgaactcacg | gcgaagggtg | ctggcgctcg | cttcccaagg | ccgcaaggct | 240 |
| gatgcgctgc | gggaagagct | gcaggctccg | atggataaac | tacctgcgtc | ctgatctgaa | 300 |
| gcgtggaaac | ttctcagaag | aagaagacga | actcgtcagt | aaactccact | tcct | 354 |

<210> 1768
 <211> 430
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1768 | | | | | | |
| cttcgacggc | gcgatagccg | agagcaccct | tatctcctcc | actctgtttc | atacatgcaa | 60 |
| caagctctgg | cagcagcaat | ggcggcccag | actatcatcg | ctgcctctat | ggcatctcct | 120 |
| ctaacattat | caaatggcca | ctatccgttt | cagtccgagt | tcaaggggtc | cgtgggtcga | 180 |
| atccccgaga | gggcattttc | cttcgcgcct | gcagcccggg | cgctgaccgt | cgtcgcagag | 240 |
| gccaagaagg | ccgttgccgt | gctcaaaggg | aattcacagg | tcgaggggtg | tgtcagtcct | 300 |
| tcgcaggaag | acagcgggtc | cacaacagtg | aagggtccgt | tgacaggact | gactcctggg | 360 |
| aagcatggct | ttcatctaca | tgagtttggt | gacacaacca | atggctgcat | atcaacagga | 420 |
| gcacatttta | | | | | | 430 |

<210> 1769
 <211> 407
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|----|
| <400> 1769 | | | | | | |
| gaacgaacgg | tgaagataca | cagaggatct | ctcaacggct | tcctctccgt | cgctcgtctct | 60 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| cctccttcca | tctccagcgt | ccgatctgat | cttatcaaag | gaagccctta | aatccctcca | 120 |
| gctttccaag | cgcggttct | gttgctgtat | cccaggtccc | tggtcatatg | gcggaagctg | 180 |
| gcagcccggg | cagccaggaa | agtctctgtt | ccgggggaaca | aagccccag | tccagcgtgc | 240 |
| gggagcagga | caggttccta | cccacgcga | acattagccg | catcatgaag | aaggcgctgc | 300 |
| cggccaacgg | caagatcgct | aaagacgcca | aggagaccgt | gcaggagtgt | gtctcggaat | 360 |
| ttatcagctt | catcaccagc | gaggccagt | acaaatgcca | gcgagaa | | 407 |

<210> 1770
 <211> 347
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1770 | | | | | | |
| cagacttttg | ctccgaactg | ttctgggtgaa | acaaaatcca | gtattgagct | aggtttagaa | 60 |
| tcgggtttgc | tggtcatctg | ggagaggcga | tccattcagc | ttcgaggcc | cccgaagatg | 120 |
| gcgttcgccc | gcacaaccca | gaagtgcaag | gcatgtgaaa | agacggtcta | tttggttgat | 180 |
| caattgacag | ctgataattc | tggtttttcac | aaatcctgtt | tccgctgcca | tactgcaat | 240 |
| ggaactttta | agcttagcaa | ctattcgtcg | tttgaggagg | ttctatattg | caaacctcat | 300 |
| tttgaccagc | tgtttaagag | aacaggaagt | ttggataaaa | gttttga | | 347 |

<210> 1771
 <211> 469
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 1771 | | | | | | |
| cgatagccga | gagcaccctt | atctcctcca | ctctgtttca | tacatgcaac | aagctctggc | 60 |
| agcagcaatg | gcggcccaga | ctatcatcgc | tgctctatg | gcctctctc | taacattatc | 120 |
| aatggccac | tatccgtttc | agtccgagtt | caaggggtcc | gtggttcgaa | tcccgcaaag | 180 |
| ggcattttcc | ttcgcgctg | cagcccgggc | gctgaccgtc | gtcgcagagg | ccaagaaggc | 240 |
| cgttgccgtg | ctcaaaggaa | attcacaggt | cgaggggtgt | gtcaatctct | cgcaggaaga | 300 |
| caacgggtccc | acaacagtga | aggtccggtt | gacaggagtg | actcctggga | agcatggctt | 360 |
| tcactacat | gagtttggtg | acacaaccaa | tggtctgcatc | tcaacaggag | cacattttta | 420 |
| tccaaaaaaa | ttgacacatg | gtgctcctga | ggatgatgta | cgccatgcg | | 469 |

<210> 1772
 <211> 461
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1772 | | | | | | |
| tcttaccctt | ttcctgagcc | accgagaatt | tcctctccgg | aataccact | tctcagagat | 60 |
| tcttgctgcg | aactctgttt | tcttcagcga | gatttgctcag | tgaattgtga | ggagtattga | 120 |
| gtcttatcat | gcggatccag | tgcgatgcct | gcgagcaggc | aactgcttca | gtgatatgtt | 180 |
| gtgcagacga | ggctgctctg | tgcagggaa | gtgatataaa | agtccacaag | gccaacaagc | 240 |
| ttgccagcaa | acacaagaga | ttatctctcc | tcgaaacttc | tcgaaagctc | tctcgctgcg | 300 |
| acatttgcca | ggatagggcc | gccatcggtt | tctgtctcga | agatcggtgt | atgctgtgcc | 360 |
| aagactgcga | tgagtcggtt | cattctcgcg | acacattagc | agcaaaacac | caaagggttc | 420 |
| tggccactgg | cattagggta | ggtctcaatg | ccctgtcatc | a | | 461 |

<210> 1773
 <211> 332
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|----|
| <400> 1773 | | | | | | |
| gacaatatgg | ctgcatggct | cactggaata | aacactcttc | gcattccagcc | cttcaaactt | 60 |

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| ccgcctcttg | gcccccatga | tgccaaggtg | cgcatgaagg | ctgtgggtat | ctgtggcagt | 120 |
| gacgtccact | atttgaggac | attacgggtg | gcggacttta | ttgtaaaaga | gccaatgggtg | 180 |
| attgggtcatg | agtctgctgg | aataattgag | gagggttgga | gtgaagtga | acatctgggt | 240 |
| cctgggtgacc | gcgtagcttt | ggagcctgga | atatcgtgtt | ggcgttgtga | ccaatgtaag | 300 |
| cgaggctcct | acaatttgtg | tcccagatg | aa | | | 332 |

<210> 1774
 <211> 322
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1774 | | | | | | |
| ctcctgtgca | gcgtacgcct | tcgcctttgc | gatttcgagc | cccattggaa | ttgccattgg | 60 |
| aatacttatt | gacgccacta | cagagggccg | agtggcagac | tggatttatg | caatctcaat | 120 |
| gggttttgcg | tgcggtgttt | tcgtttatgt | tgccatcaac | catcttctga | tgaaggatt | 180 |
| aatacagaac | cctctgaaag | gtgtgattcg | ctttgacaaa | cccttttaca | aatatttggc | 240 |
| tgtactcact | ggagctggac | tgattgcagt | ggtaatgatt | tgggacacct | agtggtaatg | 300 |
| aattgggaca | cttcttagct | gc | | | | 322 |

<210> 1775
 <211> 428
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| <400> 1775 | | | | | | |
| gagagagaga | gagagagaga | gagagagaga | gagagagact | cnngccgant | tcgnnacnag | 60 |
| cgaagccngt | ttccaaanat | ggatnngggag | aaactcatga | agatggctgg | tgcatgccgc | 120 |
| actggcggaa | aggggtacaat | gcgaaggaaa | aagaagacaa | ttcataagac | tgccacggca | 180 |
| gatgacaaga | gacttcaaag | taccttgaaa | agaataggcg | tgaataacat | ccctgctatt | 240 |
| gaagaagtca | atatttttaa | ggatgaccat | gttattcatt | ttgctaacct | aaaggtccag | 300 |
| gcttctattg | ctgccaacac | atgggtgggt | agtgggtcat | cgcaaacaaa | aaaacttcaa | 360 |
| gatcttttcc | ctggtatcat | caatcagctt | ggaccagaga | gttttgccaa | tctgaggaag | 420 |
| attgcaga | | | | | | 428 |

<210> 1776
 <211> 512
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1776 | | | | | | |
| ataaaaccct | aaatctctgc | actcgccagc | tacgatttat | tctgcctcca | gcatttttgg | 60 |
| ccttaccagt | ttgggcctct | ttttgcggtt | tctacacata | gccgctgcga | ttctggggag | 120 |
| tttctttggc | ttagattttt | ggggtaaaat | tctgggtatt | gtggtttgct | cacactaatt | 180 |
| atcctgtcat | ggatcatcaa | cagcagcagt | ggatgatgca | gcaacaaact | caacaacagt | 240 |
| atcagcagcc | gcagtattcg | aatgacgaaa | tccggacact | ttggatcggg | gatttgcagt | 300 |
| attgggtcga | tgaaaattat | ctccatactt | gcttttcgca | aaccggagag | gttgtgtcta | 360 |
| taaaggtgat | tcggaacaag | gctacaggct | atccggaagg | ttatggtttt | gtggagttaa | 420 |
| tttcccatgc | agcagctgag | aggattcttc | aaacatacaa | tggtacacag | atgcctggca | 480 |
| cagagcaact | ttatagatta | aattgggctt | cc | | | 512 |

<210> 1777
 <211> 498
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <400> 1777 | | | | | | |
| ggatggaagg | cacaagtaag | agattcaaag | ggaaggtagc | ggtggtgacc | gcttcaacaa | 60 |

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gggcataggg | ttcgccattg | cagagcgccct | tggcctcgaa | ggcgcttccg | tcgtcgtctc | 120 |
| atcacgaaaa | cagaaaaatg | taggggaagc | agtggaaaag | ctgagagcca | aagggattga | 180 |
| tgttctggga | gtggcttgcc | atgtttccag | tcgagaccag | aggagagatc | tcatccaaaa | 240 |
| gactgtagat | aaatatggtc | gcatagacat | tctggtctca | aatgcagctg | ctaatacaac | 300 |
| tgtggacccc | attgtttcgg | ttccagagcc | tgtacttgat | aaactttggg | agattaacgt | 360 |
| caaggccact | attcttcttg | tccaggatgc | ttctgctcac | ttgtcacaag | agtcatacat | 420 |
| tatcataatt | tcgtcaatta | ctgcttacag | gccagaggca | atgatggcca | tgtatggggg | 480 |
| taccaagact | gctctttt | | | | | 498 |

<210> 1778
 <211> 435
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1778 | | | | | | |
| ggcgacacat | ggcccgtgtc | aggcgccctg | agaggccaca | agcgtgcaat | tctatgcttg | 60 |
| gcgagtgttg | cagaattttt | atgcagtggg | tcggcggata | atactattag | aatgtggaaa | 120 |
| aggggagaag | gaaacaggca | ttactgtttg | gcggttttag | aaggtcacag | aggacctgtt | 180 |
| aagtccatcg | cagtgtcttt | agacactgtg | aggggatgcc | acgtctacag | cggaagcctg | 240 |
| gatcatgaca | ttaaggtttg | gcgggttagt | tcaaataaaa | gcagttccga | cgatcatgcc | 300 |
| gagggtgcca | accataacaa | tcgcttgaaa | accatacact | cccctgagga | aagcgttttt | 360 |
| cattcaaggc | aaatttttgg | tatttcatga | aactgatgta | gccatctacg | tgtcaactaa | 420 |
| ctacaatatg | cctgt | | | | | 435 |

<210> 1779
 <211> 470
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|-----|
| <400> 1779 | | | | | | |
| gccatggctg | catttcgcag | ggttctgttg | ctgtatccca | ggtccctggt | catatggcgg | 60 |
| aagctggcag | cccgggcagc | caggaaagtc | ctcgttccgg | ggaacaaagc | ccccagtcca | 120 |
| gcgtgcggga | gcaggacagg | ttcctaccca | tcgccaacat | tagccgcac | atgaagaagg | 180 |
| cgctgccggc | caacggcaag | atcgctaaag | acgccaaagga | gaccgtgcag | gagtgtgtct | 240 |
| cggaatttat | cagcttcac | accagcggag | ccagtgcaca | atgccagcga | gaaaagagga | 300 |
| agacaatcaa | cggcgatgac | ttgctctggg | ccatgagcac | gctaggggtt | gaagattata | 360 |
| tcgagccctt | gaagggttac | ttgctcatgt | acagagaggc | ggaggggtgac | aataagggat | 420 |
| cttcaaaatc | tggagtagac | caatatggaa | agaaagagtc | aaatgtacat | | 470 |

<210> 1780
 <211> 359
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| <400> 1780 | | | | | | |
| attcgttcgt | tccaacaaca | gcgaagccga | tttccaaaga | tggataggga | gaaactcatg | 60 |
| aagatggctg | gtgcagtcgc | cactggcgga | aagggtacaa | tgcaaggaa | aaagaagaca | 120 |
| attcataaga | ctgccacagc | agatgacaag | agacttcaaa | gtaccttgaa | aagaataggc | 180 |
| gtgaataaca | tccctgctat | tgaagaagtc | aatattttta | aggatgacca | tgttattcat | 240 |
| tttgctaacc | caaagggtcca | ggcttctatt | gctgccaaaca | catgggtggt | tagtgggtca | 300 |
| tcgcaaacaa | aaaaacttca | agatcttttc | cctgggtatca | tcaatcagct | tggaccaga | 359 |

<210> 1781
 <211> 360
 <212> DNA
 <213> Pinus radiata

<400> 1781
 cggccccgagc aatttttgctt ctctgctaaa cgatgggaag agcgccttgc tgtgccaacg 60
 gtgacagaag caagggagcc tggaccaagg aagaggatga caggcttacc caatatattc 120
 aggctcatgg agaaggatgc tggcgttctc tccccaaggc cgcaggtctg cttcgggtgtg 180
 gaaaaagtgt caggctgaga tggataaatt atcttcgccc tgatctgaaa cgaggagggt 240
 tttctgaaga tgaagacgat cttattctca aactgcacgc cctcctcgga aataagtggg 300
 ctctgatagc gggctcgtttg cctgggtcgaa ctgacaacga gatcaaaaac tactggaact 360

<210> 1782
 <211> 141
 <212> DNA
 <213> Pinus radiata

<400> 1782
 cttctgtgga ttttatcaag aactctttaa ctagtggtga tgatgataaa gggtcttttg 60
 caccaacaaa tttcattgag caggctgatg aattgatccg aaaagagctg gtgtcattac 120
 tagagcacga caatgcaaaa t 141

<210> 1783
 <211> 370
 <212> DNA
 <213> Pinus radiata

<400> 1783
 atttgagtgg ggtgttttca ctagcagaag cagcaaggtc agttttccac tacagtactg 60
 caacttcctc ctatttccca cctcctcaag cttacccttc tgacttcagt tcccacctg 120
 tgaatccacc atccaaacag ctcaatgaca caaccagatt agcccaagca ttgttctgat 180
 aattataatc ctgacagtta tattttttct ctctgcatgt cttcacgttt taatcagata 240
 cttggcaaga tctcccaata gagactccaa cagctcaggg gccataggtg caatcgaagg 300
 gcaactgcag cagctgtttc atctccatga cgcaagggtt gagcaggcct tcattgatgc 360
 attaccagtc 370

<210> 1784
 <211> 381
 <212> DNA
 <213> Pinus radiata

<400> 1784
 tggttttgat ttgagtagcg ggtttataag tccgggattt ggtggttttt aaatggggct 60
 aagctattct taattttgtt ctgttggtga cagcagagat ttgaagggga tttgaatttg 120
 aatcatggaa gttgagtgtc gcagccctcg gtcttcgctc caggggtgtg aggttgacat 180
 gaagccaacg atgggtggtg aagatacgct taatcaagga cgcattgcaat atggatgttc 240
 acactaccgc cggagatgcc aaataagggc tccgtgttgt aatgaagtct ttgactgtag 300
 gcattgtcat aatgaggcca aaaattcaat ggatgtccat ccacttgaca gacatgatgt 360
 accgcgccat gaagttcgaa a 381

<210> 1785
 <211> 441
 <212> DNA
 <213> Pinus radiata

<400> 1785
 cacaggcagc agataaatat aggcacaaga attcgtgcc aattcgtttc tttgcttact 60
 atttcttcct tcttctttaa caaatggata tattctaate agtgcgctgg taatttgcag 120
 gttgcaggga agggntgctg tgatcacagg aggtgccagt ggaatcggag aggctacggc 180
 caagtgtttc gtggagaatg gagcgaaagt agngattgca gaccttcagg acgaccatgg 240
 aaaccgtctt gctcaatccc tcgctcccaa cgctgtcttt ttccactgcg atgtctccaa 300

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| agaggcggac | gtttccgccc | tgctagactt | ggcgctggag | aagcacggac | gtctcgacat | 360 |
| agtgttcagc | aatgccggaa | tcccaggcgg | gttattctcg | tccatggcag | acgtcactgt | 420 |
| cgaggatttg | gaaaggggtca | t | | | | 441 |

<210> 1786
 <211> 435
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1786 | | | | | | |
| caataatgca | ggagtccectc | aattagtgct | caaccttggt | tttgtcttgg | aattgagcag | 60 |
| gcttctggcc | aactggcttc | tgtccccctt | ctggatatca | gaccatcaat | atggcggtcc | 120 |
| tctggatcag | ccccctcgcca | attggcccat | cactccttta | actaatcctg | ctagtcttcg | 180 |
| ttattctggc | ctcatcttct | ccgcttctct | tgcgccttct | gcccctgttt | cccccaacc | 240 |
| tgcataccct | gaccagcaga | gcgttcgtga | gaatttgccc | gccgtcttcg | actatgggag | 300 |
| tctcagtgct | gatcgccagg | aggtgggtgt | ctgtattgtt | tgtttcaatg | agttcgtgtc | 360 |
| gcgggatcga | gtgcgccggc | tagctaaatg | tggccatgtt | ttccatatgg | agtgtttgga | 420 |
| taagtggatc | gacta | | | | | 435 |

<210> 1787
 <211> 323
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|-------------|--------------|------------|-----|
| <400> 1787 | | | | | | |
| gttggttcatt | aagcatggag | ccaaagtcatt | aatcgagac | gttgcgaggaga | aagctggcag | 60 |
| aaagcttgag | gaatcacttt | ctcccgtgt | ggcaacttac | gtgactgcg | atgtgagcaa | 120 |
| agaaaaagat | gtgagcgcg | cggtggatgt | ggccatggat | aagtatggcc | aactggacat | 180 |
| tatgtataac | aacgctggaa | ctaatagacag | ctttttgggtg | aagagcgtgg | tagagtatga | 240 |
| tatggagcaa | ttcgatcgag | tgatgaatgt | aaacgtgaaa | ggagtgatgc | acggcattaa | 300 |
| gcacgccgcc | cgctgatga | tcc | | | | 323 |

<210> 1788
 <211> 359
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1788 | | | | | | |
| cccttatctc | ctccactctg | tttcatacat | gcaacaagct | ctggcagcag | caatggcggc | 60 |
| ccagactatc | atcgctgcct | ctatggcatc | tcctctaaca | ttatcaaattg | gccactatcc | 120 |
| gtttcagtc | gagttcaagg | gggtccgtgg | tcgaatccc | cagagggcat | tttccttcgc | 180 |
| gcctgcagcc | cgggcgctga | cagtcgctgc | agaggccaag | aaggccgttg | ccgtgctcaa | 240 |
| aggaaattca | caggtcgagg | gtgttgctaa | tctctcgag | gaagacaacg | gtcccacaac | 300 |
| agtgaagtc | cgtttgacag | gactgacttc | tgggaagcat | ggctttcatc | tacatgagt | 359 |

<210> 1789
 <211> 350
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1789 | | | | | | |
| ggatagttgt | gctccgagga | aagcattgaa | ttggggataa | tggcggaac | tgctacatat | 60 |
| tcattggccg | tgggtttcgt | ctgtttcgtt | ctgacgatgt | tactacttca | actctacaga | 120 |
| atagtgtgga | gggaggacag | tcgaggctac | aatttgccctc | ccggttccag | tgggtggcca | 180 |
| ttgattggag | agaccttgag | cttcattgca | gggattaatt | ccatttctaa | accacgcca | 240 |
| ttcattcaag | atcgagagca | aaggtatggg | aagatattca | gaacaaattt | gtttggaaga | 300 |
| tctcgaatga | ttgtgtctgt | ggaccagaa | ttcaacaagt | atattctgca | | 350 |

<210> 1790
<211> 337
<212> DNA
<213> Pinus radiata

<400> 1790

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| gatttaggta | gggtttttaag | gaagaaagac | gatccaagca | gtgggttttt | atcgagctcc | 60 |
| cacgcagttt | gaaggggtgtc | gcagcagaag | aagatcggat | tcgttcaccc | tcatcacaaa | 120 |
| agatggatcg | ggataagctt | atgaagatgg | ctgggtgcagt | tcgtactggg | ggaaagggta | 180 |
| cagtacgcag | aaagaagaaa | gcagttcaca | gagccacaac | aacagatgac | aaaaggctcc | 240 |
| aaagtacctt | gaagagggtta | ggagtgaata | ctattcctgc | tattgaagaa | gtaaatattt | 300 |
| tcaangatga | gatggtcatt | cattttataa | acccaaa | | | 337 |

<210> 1791
<211> 315
<212> DNA
<213> Pinus radiata

<400> 1791

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtttgccatt | gaagaccaat | aaataattat | tgtgaagcag | cagcgtttta | atcagagatc | 60 |
| cagcaagaag | aggaccagga | aaaatcattt | gcagaacaag | aagataatcc | aagatgtcaa | 120 |
| gcacacgcag | ccctcagtg | gggtgcggag | aaacttgccg | ttgcgccgat | tgcaagtgtg | 180 |
| gagttgtgag | tattgcgcct | ccatccgacc | aaacaagtgg | gggacatgca | tattgcaagt | 240 |
| gtggagaaca | ctgcagctgc | aatccatgta | actgttcaaa | gattgacgag | actgttagtg | 300 |
| ggaaatcctt | ctgta | | | | | 315 |

<210> 1792
<211> 376
<212> DNA
<213> Pinus radiata

<400> 1792

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gttttatcat | gcggatccag | tgcgatgcct | gcgagcaggc | agctgcttca | gtgatatgtt | 60 |
| gtgcagacga | ggctgctttg | tgcagggagt | gtgatataaa | agtccacaag | gccaacaagc | 120 |
| ttgccagcaa | acacaagaga | ttgcctcttg | tcggaacttc | cccaaagctc | tctcgctgcg | 180 |
| acatttgcca | ggatagggca | gccatcgctt | tctgtctcga | agatcgctgc | atgctgtgcc | 240 |
| aagactgcga | tgagtccgtt | cattctcgcg | acacattagc | agcaaaacac | caaagggtcc | 300 |
| tggccactgg | cattagggta | ggtctcaatg | ccctgtcatc | agaatctccg | ggctcaagcg | 360 |
| aatttgacaa | acagcc | | | | | 376 |

<210> 1793
<211> 407
<212> DNA
<213> Pinus radiata

<400> 1793

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|-----|
| gggaattccc | attctgcaca | tgcaatggac | aatggaatga | tggtatggat | agtttttagca | 60 |
| ggggtagtgg | caatggcagt | gtgggtatctt | ttggtacagc | accaacagcc | taagcagagc | 120 |
| cacaatgttc | cttgggagac | tcttccaccg | ggggctgtgg | gatggccctt | tctcggagag | 180 |
| atcatctctt | tctatttccg | aacaccggat | tttgtgaagc | agcggcgggg | aaggtatggg | 240 |
| aatttgttta | gaacgttcct | gataggatat | ccaatggtaa | tctcaacaga | tcctgaggtt | 300 |
| aacaagttta | ttctgaataa | tgatggccgg | ctgttcgttc | ctgcatatcc | gtcgcattgg | 360 |
| tcacagataa | tcggagagtg | caatatcttt | gctgctcgtg | gagactt | | 407 |

<210> 1794
<211> 532

<212> DNA

<213> Pinus radiata

<400> 1794

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| cctgggtgcc | ttcgtcgtc | acttcacaat | caagttgaaa | gtgaaatcaa | tcgatctgaa | 60 |
| ggtgaagggtg | aaggtgaagc | gtattctcat | tcgcctcaca | ccgccatgga | cattacagca | 120 |
| cggcagatgt | tgcatgtgat | tcgccaccat | ttgctggaag | aggaagacga | aatggatggt | 180 |
| cttgaggtag | ggggaaatta | tccattctcc | tcattcatcat | cttcattatc | cttctctccc | 240 |
| acagtgaagct | ccgatttttc | ccacgccact | gccagtggcc | catgccaaac | cagcgacagc | 300 |
| acatcattat | cagaagagaa | tgagagtgc | caaccctctt | ctgcttcttc | ttcttgtgta | 360 |
| tccactgttt | tacgaagcgc | agaggcggta | aatgtaaaag | taatgccaca | gccacagcca | 420 |
| caggaggagg | acagtcgaga | gaccatcaaa | gacaggcact | acagaggagt | gaggaagcgg | 480 |
| ccatggggta | aattcgcagc | tgaaatcagg | gaccccgcca | cgaagggggc | ca | 532 |

<210> 1795

<211> 502

<212> DNA

<213> Pinus radiata

<400> 1795

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| tgcataccat | cattgtaatg | gaggtgaaa | gaataggagt | gggattctta | ttaagcaatg | 60 |
| gaaggttacg | ctgcgaataa | cgatgcagaa | ctttgagcaa | aacccttcaa | gtggaacaga | 120 |
| agttgttcta | tttcgatctc | aaggaaaacc | cccgagggtca | ataccttaaa | atctctgaga | 180 |
| agacctccgg | ctcacggtct | acaataattg | tgcccattgg | tggagttgca | tggttcctcg | 240 |
| atctctttaa | ttattatgtc | gacggagatg | acgaggaagt | tttgagcaag | gaattgcagc | 300 |
| tggatgccaa | ggtattttat | ttcgatgttg | gggtgaataa | aaggggtcgg | ttcttgaaga | 360 |
| tttctgaagc | atctacatcc | tacagtcgca | gcacaatcat | tgtacctgta | ggaaacacaa | 420 |
| gaaaagatgg | ttgggcagca | tttagaaata | ttttaggaga | gataaatgaa | gcttccaaca | 480 |
| agcttctggc | ccatccgaac | at | | | | 502 |

<210> 1796

<211> 476

<212> DNA

<213> Pinus radiata

<400> 1796

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| cgaaactcga | atcgatatgc | tttgtggccg | gttcaaatat | ttgagcnggc | ttagcttctc | 60 |
| tgggttcagaa | atggcggact | aaagtaatag | tgtgccccga | ggtctggtgt | tcgaatctcg | 120 |
| ttggcgtgaa | aggtcaaatt | tttctctcga | gtttcattga | ttctgaaaaa | ctggcatagc | 180 |
| tatggcgatg | agcaatggga | gattgtgtga | agatttggtat | aggattaagg | ggcgtggag | 240 |
| ccccgaggag | gacgcgtcgc | tgagagggt | tggttcagaaa | tacgggcccga | ggaactggac | 300 |
| cctgataagt | aaaggaatcc | cggggcgatc | cgggaaatcg | tgagggttac | ggtggtgcaa | 360 |
| tcagctgagc | cctcagggtg | agcacagacc | ttttaccccg | tccgaggatg | ctgctattct | 420 |
| gcaggccccc | gcgcagcacg | gcaacaaatg | ggcaacaatt | gcccagagccc | tccccg | 476 |

<210> 1797

<211> 509

<212> DNA

<213> Pinus radiata

<400> 1797

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttccagacct | tttgcattct | cattattctt | ccgcctgtga | aaagatgggg | agatctccgt | 60 |
| gctgtgagaa | ggctcact | aacaaagggg | cctggactaa | acaagaagat | gaccgcctta | 120 |
| tcgctcacat | tcgagccac | ggcgaagggg | gctggcggtc | tcttcccaag | gccgcagggc | 180 |
| tgctgagatg | cggcaagagc | tgagactgc | gatggataaa | ctacctgcgt | cccgatctga | 240 |
| agcgtggaag | cttcaccgaa | gaagaagacg | agctcatcat | caaactccac | tccttcgttg | 300 |
| gcaacaagtg | gtctttaatt | gcaggggagt | tgcccgagac | gacggacaac | gagataaaga | 360 |

<400> 1802
agcgtctata gaagagcagg gactaattcc atctttctcc atttctatatt ctcttcccaa 60
tcaaaaccat ggcgtctaac ggacagctta atgcaggcac tggctgtgtt ggtgatctga 120
ccaatgttgg agatcgacga ttggagggga aggttgcaat agtaacgggc ggggcagcgg 180
gcataggaga agccattgtt cagttgttca ttaagcatgg agccaaagtc ataatcgccg 240
acgttgcgga gaaagctggc agaaagcttg agcaatccct ttcacccgct gtggcaactt 300
acgtgcactg cgatgtgagc aaagaagagg atgtaagcgc agcagtggat gtggccatcg 360
acaagtatgg tcaactggac attatgtata acaacgctgg aactaacgac agcgttttgg 420
tgaagagcgt aacagagtat gatatggagc aattcgatcg agtgataaat gtaaa 475

<210> 1803

<211> 382

<212> DNA

<213> Pinus radiata

<400> 1803
attactttca gttttgcaag ctggagatga ctttgactgt ccagtatgtt tatcaccacc 60
atcagaggct atcataacca tctgttcaca tgtgttctgt aagaagtgc ttgagaagac 120
attgaaacat ctaaagccac agtgtccatt gtgccgtaag cagcttacag catctgatct 180
ttttagttca ccaaaggttg ctgacgagaa tgaagttaca tcagaaaaag tagccaaaac 240
tggttcaaaa attaatgcat taatagctct attgaaagag tcccaggatc atgatccaac 300
tacaaaatct gttgtatttt cacaatttcg aaaaatgctg gatctcttgc atgaaccttt 360
gaaaagtcag gcttctagtt tg 382

<210> 1804

<211> 533

<212> DNA

<213> Pinus radiata

<400> 1804
atcgccctgga atttgccttc tgcaagataa tattcaatta atctattgtc gaaggaaatt 60
tgagccgtat aagaggataa tcaaaagaag ccggttgatt tctccgggat taaaggatgg 120
atcaagaaaa ctggaacatc ggagctgatg gcactggctg ccaagctcca gaagggcaca 180
ctctttgctc caataactgc ggcttttttg gcagttcggc aacgagaaac ctgtgttcga 240
aatgttacag ggatctgatt atgaaggagg cccaagcctc atctgcaatg gccgccgttg 300
agaagtcatt tgccgcgggt tctccgatgg aggaggaggc ccctctttcc aagccagatg 360
ttttcgtcga acaaagccgt gcaccgatct cccagccgt agtccaagcc tcgtcagttc 420
acttggtgta tataggttca tcttcttctc cacaacctcc tgccgaaact cctaaccggt 480
gcttctcctg caggaaacga gtcggtctga ccggcttcaa atgtcgggtgc gga 533

<210> 1805

<211> 549

<212> DNA

<213> Pinus radiata

<400> 1805
gagtgaggaa gctgtagatg aaaagcgtgt aaatctgcag caagcagaag gtccggaggga 60
gccaggggtt gtaactgcga gcacattaga atccccaaaa agtacagaac aggagaatag 120
tcttgagggtt gaggaagctg gtgacaaaaa gctccaggca catgtgaatg aaacgtcttt 180
gaatgcagat caagaaaatt ccatcaagga gcttcacaac aagtatcctc gttactcgga 240
agaacttttg acgaatatgc tggctgatca ggatggcgat ttgaaagagc tagaagcact 300
cttaaaaaa ttacaacgcc aagagattag agctgcta atcgaaaaatgt caggtccatc 360
atcttcaaag gcaacagata acacagatgt ttccacggaa tcaccaccct caaagctaca 420
gaatgcctct aagggcaaaa ccagaggaaa gagcgccaag aagagagaaa gggataacaac 480
tttatccgta ggtagagttc acaaaacgcg tcgaaaaact gcttccgacg atgtgaaggc 540
cgcttctaa 549

<210> 1806
 <211> 397
 <212> DNA
 <213> Pinus radiata

<400> 1806
 gttttgggct ctcatttggg agttacattc aaccaagctc atcacatggc gtccgagaag 60
 gaagctgctc ttgctgccac accaccagaa gatgataaac ctacaatatt tgacaaaata 120
 ctgcagaagg agattcccag tacagtgggt tacgaggatg agaagggtact tgcattcagg 180
 gatatcgcac cccaagcacc tactcacatc attatcatcc ccaaagtaag ggatggcttg 240
 actggcctat ctaaggcaga agagaggcat gaggatattc taggtcacct gctatacact 300
 gcaaaagtta ttgcaaagca ggaagggtta tctgatggct tcagaattgt cattaacgat 360
 ggtcctactg gatgccaatc tgtgtaccat ttacata 397

<210> 1807
 <211> 242
 <212> DNA
 <213> Pinus radiata

<400> 1807
 caagatgggc agatcttctt gctgctcaaa agaagggtc aaccgtgggg cctggaccaa 60
 aaggaggat atgattctct ccgaatacat tcgaattcat ggcgatggcg gatggagaaa 120
 tatgccc aaa agagcaggct ttaaagggtg tggaaagagc tgcagattac gatggctgaa 180
 ctatcttcgc cccgacatta aacgtggaaa catttccct gatgaggagg aactcataat 240
 tc 242

<210> 1808
 <211> 364
 <212> DNA
 <213> Pinus radiata

<400> 1808
 caagagtaaa cccgaaggaa tagaagggga aggaggcatc ggcagcgttg ttcctcctcc 60
 tctcctctcc tgcatttctc aaactcaa atctctctc tcacaatcat ggaaggcggga 120
 gtcgtctttg aatctgtgca aaaccactg gatcgctga aactggaaa tatggaccat 180
 ggttggtccc attacaggag acgatgtcgg attcggggcc cttgttgcaa tgagatctat 240
 gattntaggc actgtcacia tgaagccatg agccatctaa aggaccctt gctgcgccat 300
 gagctcccaa gatacaaagt tgaacgggtt atttgttctc tctgtgacac tgagcaaaat 360
 gtca 364

<210> 1809
 <211> 265
 <212> DNA
 <213> Pinus radiata

<400> 1809
 cttaagtttc agatgcctgg taattcttct tttccaactg gaaacgctgc cccatcaact 60
 aaaaatcttt actattcatt tgacttggga gttgtacatt tcttgtatat gtccactgaa 120
 actaattttt tagatggaag tgatcaatat gctttcatag agcaagattt gaaaaaggtt 180
 gatagaaaca agactccatt tgtagtattt caagggtcacc gtcccatgta tacgactaac 240
 tatgaactaa aagatgcgcc tctaa 265

<210> 1810
 <211> 346
 <212> DNA
 <213> Pinus radiata

<400> 1810
 cttgaatcga tcttgccctgc ttgtgccgga ggcgcgcacag tgtgtgggtt gttctcgttt 60
 ttcattcttaa agcggcggtt gcaggaattg attgtgtgag gggacgagat gtgtgcagag 120
 gtaagtcaga gtgccatggc cgtgcacact atgcagatgg cgagaatgga aatgaagcgt 180
 gaaataggag tctgtgagca ggaagcttcg tcggccgtga aggaaacgca tttcagaggc 240
 gtgaggaaaa ggccgtgggg gagattcgca gcggaaatta gagatccctt gaagaaaacc 300
 agagtctggc taggcacttt tgacactgcc gaagaagctg ccgagc 346

<210> 1811
 <211> 353
 <212> DNA
 <213> Pinus radiata

<400> 1811
 cgaaactcga atcgatatgc tttgtggccg gttcaaatat ttgagctggc ttagcttctc 60
 tggttcagaa atggcggact aaagtaatag tgtgccccga ggtctggtgt tcgaatctcg 120
 ttggcgtgaa aggtcaaatt tttctctcga gtttcattga ttctgaaaaa ctggcatagc 180
 tatggcgatg agcaatggga gattgtgtga agatttggat aggattaagg ggccgtggag 240
 ccccgaggag gacgcgtcgc tgcagaggct tgttcagaaa tacggggccga ggaactggac 300
 cctgataagt aaaggaatcc cggggcgatc cgggaaatcg tgcnagcttc ggg 353

<210> 1812
 <211> 185
 <212> DNA
 <213> Pinus radiata

<400> 1812
 tcttgctgcc acaccaccag aagatgataa acctacaata tttgacaaaa tactgcagaa 60
 ggagattccc agtacagtgg tttacgagga tgagaaggta cttgcattca gggatatcgc 120
 accccaacac ctactcacat cattatcatc cccaaagtaa gggatggctt gactggccta 180
 tctaa 185

<210> 1813
 <211> 337
 <212> DNA
 <213> Pinus radiata

<400> 1813
 caataaatgg ccgaatgaat taatcaacga tgaaatgaat taatgaataa gctatttggat 60
 ctaggaaggg ttttgaggct gaaagttttg ggctctcatt tgggagttac attcaaccaa 120
 gctcatcata tggcgtccga gaaggaagct gctcttgctg ccacaccacc agaagatgat 180
 aaacctacaa tatttgacaa aatactgcag aaggagattc ccagtacagt ggtttacgag 240
 gatgagaagg tacttgcatt cagggatatc gcaccccaac acctactcac atcattatca 300
 tccccaaagt aagggatggc ttgactggcc tatctaa 337

<210> 1814
 <211> 340
 <212> DNA
 <213> Pinus radiata

<400> 1814
 gttcaaggga gacgggatat tcagagtccg atcgccgccca tggccgtaga caccatacag 60
 atggcgagag tgggtgtaaa aatgaagatc ggaggaggcg gctgcgagga agaggcgtcc 120
 tcggctgtga aggaaacgca tttcagagga gtgaggaaaa ggccgtgggg gagattcgct 180
 gccgagatca gagatccctt gaagaaaacc agagtctggc tgggcacttt tgacactgca 240
 gaggaggccg ccgagccta cgataacgct gccagaaatt ccgcggggcc aaggcgaaaa 300

ctaatttttct tctgtctccc cacaatgaca ttagcaccaa

340

<210> 1815

<211> 433

<212> DNA

<213> Pinus radiata

<400> 1815

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| ccgctatcct | ttccattaca | tcccacgtta | ggtcacgggt | tcgaaccctt | gcacggccat | 60 |
| tcttctgtta | agatgggtgag | atctccctgc | tgcgacaagg | ttcataccaa | taacaaaggc | 120 |
| gcctggacca | aagaagaaga | cgagcgtctc | atagcacaca | ttgaagccca | cggcgagggc | 180 |
| tcattggcgtt | ctcttcccaa | ggccgcaggg | ctgctgcgat | gtgggaagag | ctgcaggttg | 240 |
| cgatggataa | actacctgcg | tcctgatctg | aaacgcggaa | gcttttcaga | agaagaagac | 300 |
| gatctcatca | tcaaactcca | ctccctcctc | ggcaacaagt | ggtcgcttat | tgacgggaga | 360 |
| ttgccagggc | gaacgggaca | ccgaaaataa | aaaattactg | gaacacgcac | atgaaaagga | 420 |
| aattgttgag | cag | | | | | 433 |

<210> 1816

<211> 225

<212> DNA

<213> Pinus radiata

<400> 1816

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| atcacagtcg | gcctctgatc | aaagaagaag | ccgaatcaag | gtgataattc | tgcaaattct | 60 |
| gcagatgtag | aaactcttct | tcctcagggt | gatgaaacag | cttctgctga | tctgacagtg | 120 |
| ttcccagggt | ttgttaccct | ttatgtacca | tacgggttcc | ccatatggca | cactttttaga | 180 |
| cccacaataa | ctcaaacttc | caatgtttat | aagccaacag | ctgta | | 225 |

<210> 1817

<211> 337

<212> DNA

<213> Pinus radiata

<400> 1817

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gttgctgctg | cttctgcttc | tgcttctggt | actgctgttg | ctgcgtcttt | gccagtgaac | 60 |
| ggtgctgctg | gggtcagatc | tagtggtgat | tgggagcatt | cggatataga | ggcgtctttt | 120 |
| aaagaggccg | aatgcagtca | ggccattggt | gaaaggaggc | ctcggaaacg | gggcaggaag | 180 |
| cctgccaatg | gtagagaaga | acctctgaat | catgtagaag | ctgaaaggca | gaggcgagag | 240 |
| aagttgaacc | agagggttta | cgcactccgc | gctgtggttc | ccaatgtgtc | caagatggat | 300 |
| aaggcctctc | tgttgggtga | tgccatttct | tacatta | | | 337 |

<210> 1818

<211> 390

<212> DNA

<213> Pinus radiata

<400> 1818

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtttgttcga | acgatgaaaa | ccagctaaaa | caaagcgcag | ggattggcag | gattcgagca | 60 |
| gtggtccttg | gggcggaggt | gatagaagaa | gaagaaacct | accatataca | catacatata | 120 |
| ttatatacat | agacacatgg | gggctccgaa | gcagaaatgg | acttccgaag | aggagggagc | 180 |
| tctcaaagca | ggtggtgaga | agtatggcac | tggcaagtgg | cggaccattc | agaaggaccc | 240 |
| tgagtttgga | cactgcctcg | ccgctcgctt | caatgtggat | ttgaaggata | agtggcgcaa | 300 |
| tatgagtgtg | agtgtagtgt | gccaagggtt | aagggtataa | gtaaagactc | caagagtaaa | 360 |
| agctattgcc | tctctgcctt | attcatcaag | | | | 390 |

<210> 1819

<211> 367

<212> DNA

<213> Pinus radiata

<400> 1819

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| attcaaaatg | ggaaagaagt | tggagctgaa | acgcatccaa | aaccctaata | gttcacgtga | 60 |
| ttccttctcc | aaatgcaaga | ggggactgct | aaagaaatcg | gtcaagctct | ttgttctctg | 120 |
| tgatgctgaa | gtttccctca | tcattttatc | tgaaccgcc | aagatttacg | agtttgcaag | 180 |
| caacaagtcg | tgactagctc | ttgtgaattc | ttctgatcaa | gttagagatc | catatactga | 240 |
| tatataaaaag | catactttca | cattgcaatt | ggagcagatc | tagatgcaga | agtgcaacct | 300 |
| tattatacct | aaaggccatc | agctgcaa | caagacccat | tttctatctt | ttgagatcgt | 360 |
| gatacag | | | | | | 367 |

<210> 1820

<211> 487

<212> DNA

<213> Pinus radiata

<400> 1820

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| acgatcttca | ccctcgggtgc | gctctctgct | tatcccgatt | cccagccaac | tgctattata | 60 |
| ttcggagtac | tgtacttcca | gaactgggtat | cttcaagcac | caagaccatt | ttctgagctg | 120 |
| ttaaagatac | tatgagtgat | atggatcggt | catcatcaga | agattcagtg | gattctcaag | 180 |
| gtgatgtgaa | tgcaaactac | aagatgggtt | tctcggaaga | tgaaaaggat | ctcataagca | 240 |
| ggctgtacaa | tctactgggc | cagaggtggg | ctttgattgc | tgggcgaatt | cccggcagaa | 300 |
| ctgcagagga | aatagagaaa | tattgtagca | ggcgatatat | tagtgagtac | taggtcacat | 360 |
| gggtttctaa | tagtcaatga | agaagaaggg | tagaagcagc | cttgcctatc | taactgattt | 420 |
| aagtttggga | tatatatatc | gactttgagt | gatggccata | tcttctgggg | tttataagga | 480 |
| agtatgt | | | | | | 487 |

<210> 1821

<211> 319

<212> DNA

<213> Pinus radiata

<400> 1821

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tttaagcatt | tcattgagtc | ttaggtcacg | gtttccaatc | ctggcaggtc | tcattattct | 60 |
| gtctctctgg | caagatgggg | agaactccct | gctgtgaaaa | aggtcataca | aacaaaggcg | 120 |
| cgtggacca | agaagaggac | gatcgctca | tcgctcacat | tcgagccac | ggcgaaggcc | 180 |
| gctggcggtc | gcttcccaag | gccgcagggc | tgatgcgatg | cggaagagt | tgagggtcc | 240 |
| gatggataaa | ctacttgcgt | ccagtctcaa | gcgtggaaac | ttctcagaag | aagaagatga | 300 |
| gttcatcatc | aaactccac | | | | | 319 |

<210> 1822

<211> 320

<212> DNA

<213> Pinus radiata

<400> 1822

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcaaagagtt | gcagattgag | ttggctgaac | tatcttcgct | ccgatattaa | acgtggtaac | 60 |
| atctctccc | aggaagaaga | gctcattatt | cggttgcatc | gccttcttgg | aaatcggtat | 120 |
| gtagagaatc | gggggacatg | atctattcat | gcgccagaat | ttcacgattc | ctcatcgaat | 180 |
| tagtcatgca | atgtttgtgc | aggtgggtct | tgatagcagg | acgactgcct | ggcgaacag | 240 |
| acaacgaaat | caagaattac | tggaacactc | atatgagcaa | gaagccatgg | ctgtcaatgg | 300 |
| acgaatctca | gtccaatact | | | | | 320 |

<210> 1823

<211> 338

<212> DNA

<213> Pinus radiata

<400> 1823

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtcgcgctcc | ttgctgcgag | aaaacccata | caaacaaagg | cgcttgaggt | aaagatgaag | 60 |
| atgaagcact | cggtgcatat | attcaagccc | atggagaagg | cagttggcgt | tcccttccca | 120 |
| aggccgctgg | ggtgcagcgg | tgtggcaaaa | gctgcaggct | tagatggata | aattatctcc | 180 |
| gtcctgacct | caaacggggc | aatttcagcc | cagaagaaga | tgagatcatt | atcaaacttc | 240 |
| attctatggt | gggtaacaag | tggtctttga | tcgcaagcaa | attgccaggg | cgaacagata | 300 |
| atgagataaa | gaattactgg | aacactcaca | ttaagaga | | | 338 |

<210> 1824

<211> 332

<212> DNA

<213> Pinus radiata

<400> 1824

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gccgaggtga | ggaggcatta | cgagcttctt | gttgaggatg | tgactgtgat | tgagtctggc | 60 |
| cggttgctt | tgctgctta | ttctgaaaat | tcgtatacac | cgcccgatt | gatgtcagat | 120 |
| cagttggcg | atctcacaaa | acagcaggcg | gtttctgtga | aggctccctc | ggccaaggca | 180 |
| tccgaacagg | agcgcaaaaa | gggcgtgccc | tggaactgaag | aagagcacag | actcttcttg | 240 |
| atgggattga | ataaatatgg | caaaggtgat | tggaagaagca | tatcaagaaa | ctttgtggtc | 300 |
| tcacggacac | ctactcaagt | tgcaagccac | gc | | | 332 |

<210> 1825

<211> 301

<212> DNA

<213> Pinus radiata

<400> 1825

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|-----|
| accgtcgaga | gagcttcata | tctaaccaat | aataacacct | gtatggcttc | atagcttcac | 60 |
| agcaacagg | caccatgggc | cgagctcctt | gctgggataa | aatgggagta | aagaaaggcg | 120 |
| cctggactct | agacgaagat | aaaataactcg | tcgattacat | taccaaacad | ggccatggca | 180 |
| actggcgcg | actgcccgaag | caagcagggc | tcctgcgatg | tggaagagat | tgctgcctgc | 240 |
| ggtggacgaa | ctacctgata | cccgcacatca | aaagaggga | ttttattcca | gaagaggaat | 300 |
| a | | | | | | 301 |

<210> 1826

<211> 498

<212> DNA

<213> Pinus radiata

<400> 1826

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| tttgcaccca | attcttccctg | tatcatctaa | ttgctcagtc | tagcaattac | gcaatctcgg | 60 |
| tccccagtca | tgtctgacga | agaggttaat | gcaactgctg | cctctgtggg | caatctgacc | 120 |
| ttgctgctgc | atgcactctca | gcgacgattg | gaaggcaagg | tcgcaataat | aacgggcgga | 180 |
| gcatctggca | taggagaagg | catcgttcgg | ctcttcacaa | agcacggagc | cagagtcata | 240 |
| atcgagaca | ttgcagatga | aaccggcaaa | attctggccg | aatccctttc | gcctccggcc | 300 |
| acttacgtgc | gctgcgatgt | gagcaaagag | caagacgtca | gcgctgcggt | ggatttggcc | 360 |
| atggagaagt | acgcgcagct | ggatatcatg | tttaacaacg | caggaatcgt | cgatacgggt | 420 |
| aatgtttcaa | ggggagtggc | agagtacgag | atggagcagt | tcgaccgagt | tatgagcgct | 480 |
| aacgtcagag | gggtgatg | | | | | 498 |

<210> 1827

<211> 551

<212> DNA

<213> Pinus radiata

<400> 1827
 cgtggctctt cccggcagac ctagtaagcc gactactgta aatttattct tttagggtta 60
 cagaagaaga aaatacaaga tgggcagatc tccttgctgc tcaaaagaag ggctcaaccg 120
 tggggcctgg accaaaaggg aggatatgat tctctccgaa tacattcgaa ttcattggcg 180
 tggcggatgg agaaatatgc ccaaaagagc aggtcttaaa cgggtgtggaa agagctgcag 240
 attacgatgg ctgaactatc ttcgccccga cattaaacgt ggaaacattt cccctgatga 300
 ggaggaactc ataattcggc tccatcgcct tcttggaat cgatggtcgc ttatagcagg 360
 aagattacca ggtcgaacag acaacgaaat caagaactac tggaacactc atatgagcaa 420
 gaagctgctt ccattgaacg aatctgaacc caagactttg cctgtcccca agaggaggtc 480
 gcaatctcct tctcccctgc aaaatcgagt ctttaaagcc aaccctgtga aaataacaac 540
 ggtggtcagt c 551

<210> 1828
 <211> 256
 <212> DNA
 <213> Pinus radiata

<400> 1828
 ctgaaattcg gatgccgaaa tcccatgaga agatatggct gggatcctat aataccgccg 60
 agcaagccgc ccgtgcttac gacgccgctg tgtattgtct gagaggacct gccgccaac 120
 tcaattttcc agaaaccgtg ccgggtattc cgtctgcgc ttccttttcc cggcagcaaa 180
 ttcagcatgc agccaccaga tatgccttgg gtgaaatccc tttgatttcg ccctctctgc 240
 aaaatattga ctcgag 256

<210> 1829
 <211> 372
 <212> DNA
 <213> Pinus radiata

<400> 1829
 gcagattctc aacagaattg ggaaagtttt gtgaatattg aagatggctc agtgccatga 60
 aatcattgaa agtcgttgca gagacagcca tggcgcatca gatctgaagc tgtttgccat 120
 ggccgcgggt ctggtgacga gcaccggagg agtatgtttg ccggttctgt ttgccagata 180
 ttcccagagg ctcaaatttt acggcactct tctggtactg gtgaaatgtt tcgctgccgg 240
 agtgattctg tccacaggat ttgtccacgt catgccggaa gccttcgcgc ctctggaaag 300
 cgactgcctg ccggatcatc catggcacca gttcccgttc gccggactcg tggccatggc 360
 cggggcaatc ct 372

<210> 1830
 <211> 486
 <212> DNA
 <213> Pinus radiata

<400> 1830
 agcgggtggt gatttagccg agggcgaaaga ggaggacgaa gaagggttc gtaacaaacg 60
 tggcgattga tcctacctta gcctgaaaat gctgtcagga ggctacgcaa ccagatccga 120
 cactactact gtcaacaacg gatccgctaa tggcccaata ggaagtgtc cccaagaat 180
 taactcgata caaaataata atccaggagc tgtcaggcct ggctggggaa ccatgccct 240
 tcacatgaat ccttatcatc cccaatcaat gcctcttccg cccccaatg gtatgcaggg 300
 tcagcttggt tgcatggat gtagaactct tcttgtttat ccgcaagggt caccaaagt 360
 ttgctgtgca gtatgcaaca cagtcactcc agttccacct cctgggacag aaatggctca 420
 gctaattctg ggacgttgct gtacattgct aatgtatgtt cgtggagcaa ctagtgttca 480
 gtgctc 486

<210> 1831
 <211> 330
 <212> DNA

<213> Pinus radiata

<400> 1831

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gtttttccgc | aggaagtttt | gatttgagta | ggaaatcctt | tggcctcctg | gagctttgat | 60 |
| ttgctcagga | aaccctagcc | cttcggttcc | tgaagctttg | cttttcgtag | gaaacccttt | 120 |
| ggcaccggta | ggcgatggct | cccagcaaca | acagaagaga | cgacaatgga | gcacgaggag | 180 |
| ttcacttcag | gggcgtcagg | aagaggccct | ggggtcgata | cgcggcggag | attagggatc | 240 |
| catggaaaaa | agttcgtctt | tggctcggca | cctttgacac | ggccgaggaa | gccgcccggg | 300 |
| cttatgacac | tgccgctatc | tccctcagag | | | | 330 |

<210> 1832

<211> 413

<212> DNA

<213> Pinus radiata

<400> 1832

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaatctgact | atcgggatag | tgatgatgaa | ggaggaggta | ctgttcgaga | aggaaaggat | 60 |
| ctgcaaacct | caaatttcat | cgattatttt | ggtcaaagta | atcatacaga | agaagcagaa | 120 |
| aatgagcatg | atgcatcagt | ggataccaaa | gggcccctgg | aatccagcaa | tgaagtcggc | 180 |
| catcctacca | cataccccca | atcttcttca | ttgtcagcgc | aaggctctga | gcctcgagtt | 240 |
| ttttcctgta | attactgcca | gagaaaattc | tacagctcgc | aggccttagg | aggccatcag | 300 |
| aatgctcaca | agcgagaacg | caccttggca | aagagggggc | aaagaattgg | ggcttttcaa | 360 |
| cacaggtaca | taagcatggc | atccctgcct | ctccatggct | ctacagaatc | agc | 413 |

<210> 1833

<211> 260

<212> DNA

<213> Pinus radiata

<400> 1833

| | | | | | | |
|-------------|-------------|------------|------------|-------------|-------------|-----|
| gctatttgca | gcatttcctt | ccatccgtac | ccaaaagatg | ctgacaaaaca | tttactagca | 60 |
| agacagactg | catgaccag | aagccagggt | tcaaattggg | ttataaatgc | acgtgtccgc | 120 |
| ctttggaaaac | ccatgggtgga | agaaatgtat | atggaggaac | ttagagaggc | cgaaacacag | 180 |
| aatcatgcag | cagattcgaa | ggtaacaaca | gaaagtggct | aaaacaatga | agaaacgggtg | 240 |
| tcaaaggaag | gagctgggaa | | | | | 260 |

<210> 1834

<211> 338

<212> DNA

<213> Pinus radiata

<400> 1834

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| aattgaatcg | gccatgggtt | tgtatgaatt | gttacatgta | cagcagattc | agcaaataca | 60 |
| gcagcagcag | tttcaattgc | aacaacaaca | aatagcagca | gcggcttcaa | tccaccatat | 120 |
| gggtcgaaac | cctctgggtc | ccagagctca | gcccattgaa | cttcatggca | gcagcctatc | 180 |
| aaagccggct | aagctttaca | gaggcgtgag | gcagcgccac | tggggtaaat | gggttgacaga | 240 |
| gatcagggtta | cccagaaaaca | gaaccagggt | atggctgggg | acttttgata | ctgcagagga | 300 |
| agcggccatg | gcttatgaca | aggctgctta | caggctga | | | 338 |

<210> 1835

<211> 240

<212> DNA

<213> Pinus radiata

<400> 1835

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gcttattgga | atgcctgaca | ctaactatgg | aagcgaacag | acaaatgctt | gcaaaaaaca | 60 |
| gaaaagaata | cgttccaagg | attcaggaga | agatgggtgaa | gatagacaga | gataacatcc | 120 |

gatatggtaa aaggtggact catcatgtct tatga

395

<210> 1840

<211> 468

<212> DNA

<213> Pinus radiata

<400> 1840

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcatttcag | tgattcactc | actgaaatta | ttgttagaat | cactgttttg | gccccagagc | 60 |
| ttctgcgtcg | ccaaatatgg | agatacgctt | ccagcaggaa | aacgaccagg | acattgctcc | 120 |
| gccacacgaa | gatcgcgtgt | cccgccaatt | taaaggagtc | cgaccgcgta | aatgggggat | 180 |
| atgggtatcg | gaaatccgga | tgccgagatc | tgcacagaaa | atatggctgg | gctcgtacaa | 240 |
| aaagcccgcg | caggccgccc | gcgcctacga | cgccgcagtg | tattgtctga | gagggctcga | 300 |
| cgccaagttc | aatttcccca | attctgtgcc | cgacattccg | tctgcgtctt | ctctttcccg | 360 |
| ccagcagatt | caactcgctg | ccgccaaata | tgcgttgcat | cagtcccctt | caagcccgcc | 420 |
| gtctctgaac | aataataaag | aggaaccgcg | gtcaccgtcg | cagtcgtc | | 468 |

<210> 1841

<211> 378

<212> DNA

<213> Pinus radiata

<400> 1841

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| aaacaataca | gtcgacattg | ttgcagcatc | tagagctatt | cgtgaaccac | gtgtagtggg | 60 |
| acaaacaacc | agtgaaattg | acatccttga | tgatggatat | cgatggcgca | agtatgggca | 120 |
| gaaggtgggtg | aaaggaaatc | caaatccaag | gagttactat | aaatgcacaa | atgctggatg | 180 |
| tccagtgagg | aaacatgtgg | aaagagcatc | acatgatcca | aaagcgggtga | tcacaacata | 240 |
| tgaaggaaag | cataaccatg | atgtgcctgc | tgccagaaac | agcagccatg | ataatgctgc | 300 |
| aaaagggaat | ggggcagctc | ctctagcaat | gcagaataat | gtcccagcgc | ctatgaatgc | 360 |
| tataccacga | cctgttcc | | | | | 378 |

<210> 1842

<211> 382

<212> DNA

<213> Pinus radiata

<400> 1842

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctccacctc | catttcactc | tgcgagtc | attactctcc | ctatcgtcga | accacgtctt | 60 |
| tctcatcgac | caacaatgac | tcagcagaca | acctcaccaa | cagttagtcc | cgccgcactt | 120 |
| gctcttccca | cttctgcttc | atccacatct | gcaaagtctg | cagctgttcc | agtaccagcc | 180 |
| caagccaacc | ctcgaaacg | tctcgttcg | gatctctccg | cagaggagaa | gcgagaggct | 240 |
| cgtgctcatc | ggaacagaat | cgcagctcag | aactctctgt | acaaacgcaa | acagcagttc | 300 |
| actagtctcg | aacaacgagt | catcgacctc | gagaacgaga | accgccaatt | acgagacgct | 360 |
| ctcgccactt | cgcagccgaa | cc | | | | 382 |

<210> 1843

<211> 314

<212> DNA

<213> Pinus radiata

<400> 1843

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| catagaaaga | gctttatgtg | tcttgaattt | gaaccctctc | ctcgttttaa | agaatccgag | 60 |
| ctttgcaaac | acgccttgag | ctagactccg | gaatacccca | gcaacaatcc | gacatggcta | 120 |
| aatcctcgca | aaaccagaac | ccccgcaaca | gacgcgaaaa | ccgcttacgg | aagtcacggc | 180 |
| agttcaaggg | aatacgaatg | agaaaatggg | ggaaatgggt | gtcggaaatt | cgaatgccca | 240 |
| attccactgg | gagaatttgg | ctaggctctt | atgacacgcc | ggaaatggct | gcccgcgcct | 300 |
| acgattttgc | ccgg | | | | | 314 |

<210> 1844
 <211> 384
 <212> DNA
 <213> Pinus radiata

<400> 1844
 ccggttccta gttcgaatcc ttgccctaac gcagtcctcg gttttaagac tcaatcttta 60
 gtgactcccc cgcaacatgg ttaagccctt gccaaaacag agcagcccga gcggatcgga 120
 aaactgccaa ataaagtcgc ggcaattcaa aggaatccga ctgagaaaat gggggaaatg 180
 ggtgtcggaa attagaatgc cgaattccag ggccaaaatc tggctgggct cctacgactc 240
 cccggaaaaa gctgcccgcg cctacgactt tgcgttgtag tgtctaagag ggtcgaaggc 300
 cacattcaat tttcccgact ccccgccgga aattccatgc gcctctgacc tgcgcgccgc 360
 gcaaattcaa gccgccgcgg ccag 384

<210> 1845
 <211> 171
 <212> DNA
 <213> Pinus radiata

<400> 1845
 acatcccgctc ttcactttgt tgatcaacaa ttacgacaac agcgagctct tcagcagcta 60
 ggaatgatac agcagcatgc ctggagacca caaagagggc ttccagagag ggccgtttct 120
 attctccggg cttgggtatt tgagcatttc cttcatccgt accccaaaaa t 171

<210> 1846
 <211> 436
 <212> DNA
 <213> Pinus radiata

<400> 1846
 agattgatca aacacaaaata ccgtaaaatc gcagcgaaga tccaaaattc caccatgggg 60
 actgtggcgg aagatggcag caagggttac acggccgtaa atcccatcc caaaaagggc 120
 gtcgcctcgt ggctgggtga catgggtggag aaactgggtg ttgaaacttc tgcgttgtag 180
 agttcgaaga agcctctgca ttttcttttg gggaacttcg ctccagtctc ggaaactgcc 240
 cccaaatcgc acctgcatgt tgttgggcaa ctctctagtt gcttggatgg agagtctctg 300
 cgcgttggtc ccaatccgaa attcgcaccg gtagctggct atcactgggt tgatggagat 360
 ggaatgatcc atgggtctgag aattaaagat ggtaaagcca catatgtgtc acgttatgtg 420
 aagacatcac gcttga 436

<210> 1847
 <211> 303
 <212> DNA
 <213> Pinus radiata

<400> 1847
 ggaggcgagc cattctttgt tccccgctcc tcggatcctg cggcgccgga agacgatggc 60
 tacatcttca cattcatgca caacgaggag acctcgaagt cggagcttct tattttggac 120
 gccagatctc cgaccctgga acccgtagga acggtaaaagc tgccgtccag agtcccatac 180
 ggattccacg gcacattcat cacttctgaa gagcttgcca agcaggtgcc gtgaagacgc 240
 gctgtcttcc gcccttcttg ctttcttgat taccctacaa cacctgggtc tgtactttct 300
 tta 303

<210> 1848
 <211> 551
 <212> DNA
 <213> Pinus radiata

<400> 1848
 gcgatttcga gtgctgtaag caggcaacga cgcctgtttt gcttttagagt ttaacagaaa 60
 agaagaatgt gtggaggtgc tatcatctcg gactttataa taccctctgc gagccgaggc 120
 cgccgggtga ctgccaggga tatatggccc gattttgata agttctctga gtttattaat 180
 ggaggtgctg cgggtggagtc ctttgatgtc agcgttgatg tcgatgacga cgaggaggat 240
 tccgacgatg acgagttcct cgattttgag gagagctatc agaacaagaa gaagaagcag 300
 caacagccga tatccccac caagggtttc gagcttcctt tagctcgggg tcttgatgga 360
 ccggcggcca agagcgcggt gagaaagagg aagaatttgt tcagagggat caggcaacgt 420
 ccatggggga aatgggctgc agagatcagg gatcccagaa aaggcgctag ggtttggctg 480
 ggtaccttta atacggcgga ggaagctgct cgggcttatg atgcagctgc acgaaagatc 540
 agaggtgaaga a 551

<210> 1849
 <211> 527
 <212> DNA
 <213> Pinus radiata

<400> 1849
 gaacagtcga gcctcgttgc accctcctca gtcaccacaa acagcactgc agcgaaagga 60
 caagggcctg ctgatactga gtctcaacca gacctaactg ctgccgagaa gccttcaatg 120
 gagcccaaga aaccgccaag aaagaaaggt cagaaacgaa acaggagagcc cagatttgca 180
 ttcatgacca aaagtgatgt ggatcatttg gaagatggct atagatggcg caaatatggc 240
 caaaaggctg tcaaaaacag ccctttcccc aggagtact atcgttgac aaatggaaaa 300
 tgctcagtga agaagagagt ggagcgttcg tcagaagatc caggaattgt gattacgaca 360
 tatgaaggac agcattctca tccaagcccg gccatattgc gtgggtcagc agaatcccaa 420
 tcccactttt cagatcaaag attgaattct cccttcactc aaacgccatt gatcagattc 480
 cctccccacc caatgatgat gagtagtact aaccaggtcc cagctgc 527

<210> 1850
 <211> 226
 <212> DNA
 <213> Pinus radiata

<400> 1850
 gagagaaggt ggaagtacag caatagaaag tgacttgaaa agtgaaaatc ttgaagaaaa 60
 agaagcgaag gcaagtgaag atgaagataa gatgctgaaa aaaccagaca aattgttacc 120
 ttgtcctcgc tgtgacagtt tagataccaa attctgctat tacaataatt acaatgtgaa 180
 ccagcctagg catttctgta aaaattgcca gagatattgg actgct 226

<210> 1851
 <211> 236
 <212> DNA
 <213> Pinus radiata

<400> 1851
 atggccggag accacgcttg ccccgctctgc caagcgactt ttactcgccc gcaacatgtc 60
 gcacgacaca tgcgctccca caccggcgac cgcccgtaaa agtgctccat ctgcaccgac 120
 tcgtttggcc gcagcgacct cctgaagcga catgagaaga agatgcactc aaacgggcag 180
 agcgcgcgga gcacgcccac tggggccaggg cagaacaaat ttgatagcca gtttac 236

<210> 1852
 <211> 455
 <212> DNA
 <213> Pinus radiata

<400> 1852

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|-----|
| ccacaacgaa | taaatgcaaa | tgctgttctg | gatagctgaa | cccaccaact | catcagcata | 60 |
| aattttctcca | gcagaaatcc | agcctcccac | tcgcgcgcat | aaattttcttc | aacggaaatc | 120 |
| cagccggccg | ctaaattctc | tgactgaca | aaagcccaca | ggctaacaga | ttccgacatg | 180 |
| gategcccc | ttccctggcc | atctgcatac | acagaaatct | agactttgaa | aatctttcta | 240 |
| aattctgtat | ggagccctga | actgtagggtg | cagggttcga | ttaccgctat | ggatgaggcc | 300 |
| gcgcctgcca | aggctcctct | cccctgtgac | tactgtggcg | aagcgaatgc | agttctctac | 360 |
| tgccgagctg | actccgccaa | gctctgcctg | ccatgtgacc | accacgtcca | ttctgccaat | 420 |
| gccctgtcca | agaagcatgt | ccgatcccag | ctctg | | | 455 |

<210> 1853
 <211> 324
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1853 | | | | | | |
| cttgaatgtt | gttgcattgtg | agggatcaga | aagattggaa | aggccagaaa | cttaciaaaca | 60 |
| gtggcaggga | cggactcagc | gtgctggatt | tgtacagctt | cctctggatc | gtagtattct | 120 |
| ctctaaatcc | agggataagg | taaaaaccat | ttctatcata | aggatttttg | agtggacgaa | 180 |
| gatggtaatt | ggatgctatt | gggctggaag | ggaagaacta | ttcatgctct | gtctacgtgg | 240 |
| agaccttcga | catgattttg | cgatggagaa | tttttctctc | tgcaaagagt | aaggcatgat | 300 |
| acatatttgt | gattctgcca | aggc | | | | 324 |

<210> 1854
 <211> 316
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1854 | | | | | | |
| acgggctctc | caacaattag | gcatgattca | gcagcatgct | tggaggccac | agagaggact | 60 |
| tcccagcgca | tctgtttctg | tcttacgggc | ttggctattt | gaacattttc | ttcatccgta | 120 |
| tccaaaagat | gcagacaaac | atatgctcgc | gagacagact | gggcttacca | gaaatcaggt | 180 |
| ctcaaattgg | tttataaatg | cacgtgtacg | cctctggaag | cctatggtgg | aagagatgta | 240 |
| tgtggaggaa | acaaaggagg | cagaagtaga | ccatggatca | aatgataaaa | caggtaagga | 300 |
| gagtggcgag | aaaaaa | | | | | 316 |

<210> 1855
 <211> 393
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1855 | | | | | | |
| cggaaaatca | cccccttgcg | ttgcgcacca | tcgccccgac | gtaccgaagt | agcggacacg | 60 |
| gttccgtaat | attgtacagg | cgcgcgcccc | ccccacagc | gacgacagac | acacattctt | 120 |
| taacgatcca | tctccttctt | gacgaaacct | ccacccccaa | cgattgacga | tgcccaaggc | 180 |
| ggacagccag | agcggatccc | gagattctac | ggtcggcccc | gctcaaggta | cgctgaagcg | 240 |
| gaaccaggcg | tgccaccaat | gtaggaagcg | gaaactgaaa | tgcgacgcca | aaagaccttg | 300 |
| ctcgacttgt | gtgaggtcac | acaaccacgc | catcaccac | gctgggtccag | acgctgtttt | 360 |
| gccgcccttc | ccagaatgta | cctttgacga | agt | | | 393 |

<210> 1856
 <211> 359
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1856 | | | | | | |
| ggaaagtcca | acatagaaat | cttctgtgca | ttcatagaat | aaatattcta | caggctgcac | 60 |
| tgtaatttag | gcgagaaatc | gaataaaata | tacatttgtt | tgtttacgat | ggagttggca | 120 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gatgagcatt | ccatcctccg | ctataagaaa | cccaagctct | ccaagaatgt | cgtttccgag | 180 |
| cgccgcccga | ggcagaaaat | gaacaagctt | ctctacactc | tgagggctct | ggttcccaat | 240 |
| atttccaaga | tggacaaggc | atcgatttta | gcggaaccca | tcgaatatgt | ggagaagctg | 300 |
| aagcaacagg | tggagagagc | tgagtctgac | gttcaatcca | ccaacgtctc | ggctctatc | 359 |

<210> 1857
 <211> 459
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <400> 1857 | | | | | | |
| ggaaggcaat | gagagtgatc | tcctcaaggg | aatgaagaag | gcaaggcgtg | agagaggatc | 60 |
| aacagcaaag | gaacggatta | gtaaaatgcc | tccctgtgct | gctggaaaac | ggagttctat | 120 |
| ctacagaggc | gtcacaaggc | atagatggac | aggacgatat | gaagctcatc | tttgggacaa | 180 |
| aagtacttgg | aaccagaacc | aaaataaaaa | gggcaagcaa | gtgtacctag | gtgcctatga | 240 |
| tgaggaggag | gctgcagcca | gagcttatga | ccttgccgct | ctgaaatatt | ggggctctgg | 300 |
| aactctcatt | aatttttctg | ttagtgacta | tgctagagat | attgaagaga | tgcagagcat | 360 |
| ttcaagggaa | gatttctctg | cttctctcag | acggaaaagt | agtgggtttt | caaggggaat | 420 |
| gtcaaaaatac | ccgtggactg | gccaagcaat | cacaaactg | | | 459 |

<210> 1858
 <211> 368
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1858 | | | | | | |
| aaaaaggcgt | cagaatgggg | tgagtctgta | gtaagtacaa | gcgaaaacag | taatgacttg | 60 |
| gatcctccta | cttattctga | aacctcttcc | cctgctcaag | gatctgatcc | tcgggttttc | 120 |
| ccctgttaatt | tctgtcaaaag | naaattctac | agttctcaag | cattaggagg | tcatcaaaa | 180 |
| gcccataagc | gtgagagaac | tttggctaga | agggcacaga | gaatggggtc | ttttgcacaa | 240 |
| agatattcaa | gcatggcatc | acttccactc | cacggttcct | cggaaacaag | ttggacgccc | 300 |
| agtcgggttt | tagggataaa | agcacattct | ttgattcaca | aacctttccc | tgaaggatgat | 360 |
| aacctgcc | | | | | | 368 |

<210> 1859
 <211> 497
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|-----|
| <400> 1859 | | | | | | |
| ggcaagaccg | tctggaagag | gatgttacgg | gaagagagca | aaagcggttac | cgtgtctgcg | 60 |
| acccggagct | ttcggagcga | accgtggtag | taatgggggc | agaccgcac | gaatccggag | 120 |
| tccgtctcgt | gcacacgctg | atggcctgcg | cagaagcggg | gcagcgcggg | aatttggcca | 180 |
| tcgcgcggga | aatgggtgaaa | gaagtgagaa | ttctggcttc | agcacagggc | ggggcaatga | 240 |
| gcaaggctgc | cacatatatt | gccgaggctc | ttgcccggcg | aatctatggg | tttctccctc | 300 |
| aggacacctt | gcggttcaac | cagaacgacc | ccttgctccga | ttttctgcaa | tttcatttct | 360 |
| accaaacctg | cccctatctc | aaattcgcgc | acttcatagc | caaccaggcc | attctggatg | 420 |
| ccttctccgg | gcaccaacag | gttcatgtca | tagatttcaa | tctgaaacag | gggatccaat | 480 |
| ggccggcctt | gatacag | | | | | 497 |

<210> 1860
 <211> 254
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <400> 1860 | | | | | | |
| gagtaggagg | cggcggcgga | ggcaagggaa | gcccgtacag | aggcgtcagg | atgagaaaat | 60 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggggaaaatg | ggtttctgaa | gtgagggagc | cgaacaagcg | gtctcgcata | tggtcgcggt | 120 |
| cctattccac | tcccagagcc | gctgccaggg | cctatgatac | tgccgttttc | tacctcagag | 180 |
| gaccctccgc | gactctcaat | ttccccgagg | aagcacgtaa | ggagcagcag | agcgacctca | 240 |
| ggctttcgca | gctc | | | | | 254 |

<210> 1861
 <211> 515
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| <400> 1861 | | | | | | |
| catcttctcc | ttacaaaagt | agctcccctc | ttgactccag | gcggtcttcc | cagtccataa | 60 |
| cgatacggat | tacaccacg | caccccatgt | cttccacctc | atcgtattct | tctccctccc | 120 |
| ctgacacacc | atcacagtct | gccgctgtgc | gcccagacatc | tacccgagac | gattcttccg | 180 |
| tcatggaacc | tccacgtaag | cgagccaggg | ctgatcttaa | cgctgaacag | cgaagagagg | 240 |
| ccaggggcca | cgtaaatcga | attgccgctc | aaaactctcg | cgataaacgc | aaggcgcaat | 300 |
| tcactttacat | ggagcagcgc | gtggcacaac | tggaggaaga | gaaccaacga | ctacgagcag | 360 |
| gcatgggcct | ctctcaattc | acgccagccg | acaacgacaa | gttcgtcagc | ctcgagagag | 420 |
| aatcagtaca | ggcccgcgag | aacagagagc | tcaaggagag | gatcaagagt | ctagagagcg | 480 |
| ggtggtcggc | cgtcatacaa | gcgttgccag | ctca | | | 515 |

<210> 1862
 <211> 532
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1862 | | | | | | |
| agtttgctgc | tctacacctg | tggttgcaag | cgtttgagag | ttcaagaggc | aaggtttggt | 60 |
| ctgtgattaa | ttcatggcgg | cggcggcgac | gactacgttg | ggttggtgca | aggtggattt | 120 |
| gatacggctc | atgcggctgc | gagagcttac | gacagggcag | ctatcaagtt | tcgaggagtt | 180 |
| gaagctgata | taaattttac | tctcaccgac | tatcaagaag | atttagacca | gacgagcaag | 240 |
| ctctctaaag | aagagtttgt | gcatattctc | cgctcgtcaa | gtactggttt | ctctcgtgga | 300 |
| agttccaagt | atagaggcgt | taccctgcac | aagtgtgggc | gatgggaagc | cagaatgggt | 360 |
| caattcctag | gaaaaaagta | tatatatttg | ggattatttg | acagtgaaga | ggaggctgca | 420 |
| agggcatatg | ataaggctgc | tatcagggtgc | aatggaaagg | aggcagtaac | gaactttgat | 480 |
| cctagcttat | atgaaaaaga | aattcttgaa | gaaagaagag | agagtcagac | tt | 532 |

<210> 1863
 <211> 497
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| <400> 1863 | | | | | | |
| ggcacgagcn | cttctgattt | tttggccgag | ggttcgttgc | agaaaggcca | agggcaagta | 60 |
| ggaggcgata | gacctacttg | aaaatggagg | tgtctgcgaa | gaagcgaaag | gccgaagaag | 120 |
| cgaatggcgt | ggtcgatata | gccgtggaag | atgctcggaa | aatgttgga | cccttcaccc | 180 |
| gagagcaact | attagatatt | ctgcaggagg | cggcgacgca | gcacctggac | gtattggagc | 240 |
| aggtgcgcgc | catcgcggac | aaggatcctg | cgcagagaaa | gctgttcgtc | cgtggccttg | 300 |
| gctgggatac | aaatacacag | tctctcaagg | ccctcttttc | ccagttcggg | gaactggagg | 360 |
| aaggggctcgt | cattatggac | aagaacaccg | gtaagagtaa | gggttacgga | ttcgttactt | 420 |
| tcaagcacat | ggacgggtgct | cttaatgcc | taaaggagcc | cagcaagaag | atcgacggcc | 480 |
| gcatgactgt | cagtcag | | | | | 497 |

<210> 1864
 <211> 308
 <212> DNA
 <213> Pinus radiata

<400> 1864
tgcttagatg gagtttacgt ccgaaatgga gcgaatcccc ggttcaaacc ccgaggaggc 60
caccatttat ttgacggcga tggaaatgata catgccgtga cgctgcgaca cgggaaggct 120
agttacagtt gccgggttcac ggagcccgaa aaggctcatt agcgaggaaac gggcggggcg 180
gcagttttac ccgaagccca tcgggcaact ccacggccac ggacgggctg gtgcgcctgc 240
tgctgcatgg tgcccggggg ctctgcggga ctggtcaaca ccgggaaggg catgggcgtg 300
gctaatac 308

<210> 1865
<211> 395
<212> DNA
<213> Pinus radiata

<400> 1865
aagcgggtggc agattgttca caatgatttc aagtggcgct ctttcttctg cagcagagat 60
tttgaaggca tatcagctgc tcttggttgc tactcctttc aagaaaatat ctcatattat 120
gacttatcaa acggttctta atgtagcaga gggagaaacg aggttgcaca ttgttgattt 180
cggaattctg tatggtttcc aatggccttc tctgattcaa tgtctggcaa atcgtcctgg 240
tggctcctccc atgcttcgca taactggaat cgagtttccc caacctggat ttagaccagc 300
agagagaatt gaagagactg ggcgcagact ggaagactat gcaaaatctt tcggtgtgcc 360
ctttgaatac caggctattg caacaaagtg ggaga 395

<210> 1866
<211> 340
<212> DNA
<213> Pinus radiata

<400> 1866
gttaacttga aaattgaaca cttctcaccg agcagttctg atatggaaaa actggagatc 60
gaagagttgg ggagtcacca gggatgatga aaatctttgc ttattgaatg tgctaaagct 120
attgcagacg gtcgtaatgc agataatttg attgcagggc tgagacaagt tgtaaatata 180
tatggggatc cattgcatag gtttagctgca tatatggtag aaggctctgt agcaaggttg 240
catttctcag gaggacatat ttacaaaacc ctaaaatgca aggagcctac cagttccgaa 300
ctccttttctt acatgcatat tctatatgaa gtttgctcct 340

<210> 1867
<211> 398
<212> DNA
<213> Pinus radiata

<400> 1867
cttttcaaga agtggaaaag ggtgcaaagt ggaacccttt ccagaagctg gcggccgcag 60
ttcttgatgc ggcgaggagc accctggttc gtccgcttga gaagcaacgc ccgttgccca 120
acacatccga cccaacgggt caactgtgcg gcaacttcgc gccggtgccg gaaacgcna 180
tnaagcatga cctggaggtc gagggccggg taccggagtg cttagatgga gtttacgtcc 240
gcaatggcgc naatccccgg ttcaaacccc gcggcgggcca ccatttattt nacggcgatg 300
gaatgataca tgccgtgacg ctgagacacg ggaaggctag ttacagttgc cggttcacgg 360
agaccgaaag gtcctgttagc gaggagcggg cggggcggg 398

<210> 1868
<211> 200
<212> DNA
<213> Pinus radiata

<400> 1868
aattgcaa at cttgacagtt caatcggtaa atcaatgaaa agcatctcag atttatcacc 60

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|-----|
| catgtgctaa | ttctatgagt | ggtttttgtt | tggtgtagga | gcgcactgca | ttctacttcg | 120 |
| gaaaaaata | tggtatgcaga | gcacttttcct | gtagggtttct | ttaggtggga | taagagacca | 180 |
| gcaccagttg | tagcggcagc | | | | | 200 |

<210> 1869

<211> 286

<212> DNA

<213> Pinus radiata

<400> 1869

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggatagtgc | gagcggctga | acgtggagaa | gcacttcttc | gcagagaaaa | taatggggat | 60 |
| tgtagctttt | gagggagccg | aaagaaaaat | cagactggaa | ggaagagatc | agtggcgtat | 120 |
| tgtgatggaa | tcagcgggat | tcaaatttac | caatttaagt | cattatgcaa | ggagccaagc | 180 |
| tcgaattctt | ctctataatt | attgtgaagc | gtattctcta | gatgaatcgt | cggggtttct | 240 |
| ctctttggca | tggcaaaatc | ggcccctcct | caccgtcttc | agcctg | | 286 |

<210> 1870

<211> 301

<212> DNA

<213> Pinus radiata

<400> 1870

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctatacctcc | gcctcttgtc | aatttcaggc | tctttcttcc | tgatttttca | gacagtgtac | 60 |
| agtcgcgata | ttcacacaag | gccgccatta | tcatctatct | ttcaagaagc | agtagaccaa | 120 |
| acaagcaaaa | gcggaaaaac | tatgggaaag | aagaagaggn | aggcccccaa | ggtctggtgt | 180 |
| tattactgtg | agcgcgagtt | cgntgatgaa | aagatattgg | ttcagcaccn | gaaggccaaa | 240 |
| catttcaagt | gccatgtctg | ccacaagaag | ttgtctaccc | gctggaggca | tggccatcca | 300 |
| t | | | | | | 301 |

<210> 1871

<211> 301

<212> DNA

<213> Pinus radiata

<400> 1871

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|-----|
| ggctgcacca | ctgtagtaga | aacttttagcc | aagtggcagg | agctgaacag | ccaggtggaa | 60 |
| agctcaaaaag | atggcgcgaa | aagactcagg | aaagcccctg | ccaaagggtc | aaagaaaggt | 120 |
| tgcataaaag | gaaaggggtg | tcctgataat | ggacgttgca | actatagagg | agtcaggcag | 180 |
| agaacgtggg | gaaaatgggt | tgcggaatc | agagaaccga | atcgtgggaag | tcgactgtgg | 240 |
| ttgggtacgt | tctcttcagc | ggaggaggca | gcacgtgctt | atgatcaggc | tgcgagggtt | 300 |
| a | | | | | | 301 |

<210> 1872

<211> 447

<212> DNA

<213> Pinus radiata

<400> 1872

| | | | | | | |
|-------------|-------------|------------|------------|------------|------------|-----|
| aagaaacctta | cttgggggcaa | gagctcagcc | catgaaactt | tctgctaaaa | atgattcaaa | 60 |
| actgggtatt | gcaaggcctg | ccaagctcta | cagaggagtg | agacagaggc | actgggggaa | 120 |
| atgggtagca | gagatcagat | tacctaggaa | tagaaccagg | ctctggcttg | gaacttttga | 180 |
| cacagcagaa | gaagcagcgt | ttgcatatga | cacagcagcc | taccaactac | gtggtgagta | 240 |
| cgcaaggctt | aattttccgg | acttgaggta | tcttttgctc | tcaaattcgg | ataacggtag | 300 |
| ccataatgtt | ctttcgccac | cgggtaatgc | gttatctgtg | ctgaaatctt | ctgttgatgc | 360 |
| aaagctccag | gcaatttgcc | agcgtttatc | ccaggaaaat | tcttcagaaa | atcgtctgat | 420 |
| ggcacacagt | gccacaatg | aagctct | | | | 447 |

<210> 1873
<211> 311
<212> DNA
<213> Pinus radiata

<400> 1873
gaagatggca gcaaggggta caaggccgta aatccccatc ccaaaaaggg cgtcgcctcg 60
tggctggtgg acatggtgga gaaactggtg gttgaaactt ctgcgttgta tagttcgaag 120
aagcctctgc attttctttt ggggaacttc gctccagtct cggaaactgc ccccaaactc 180
cacctgcctg ttgttgggca acttcttagt tgcttggatg gagagttcgt gcgcgttggt 240
cccaatccga aattcgcacc ggtagctggc tatcactggt ttgatggaga tggaatgac 300
catggtctca g 311

<210> 1874
<211> 383
<212> DNA
<213> Pinus radiata

<400> 1874
ttctcgcccc ttttttccct gcactcacca cttccatcgc cattgctgga accctagaag 60
accagtctct ttttttttta actcaggagt taaatcgcaa tacaaaactc ctgtgctgga 120
ctctattgta tcatagtatt cagcaagaga ggccatgggg cggggaaaga tcgagctgaa 180
gaagatcgaa agcacaagca acaggcaggt gacgttctcg aagcggcgga tggggttgct 240
taaaaaggca caggagcttt ccgtcttatg cgatgcagag gtcggcgtca tcattttctc 300
taataccggc agactctacg acttctcgag ctccagtatg gagaagatga ttgaaacata 360
ctatcgattt attgaaaaaa atg 383

<210> 1875
<211> 235
<212> DNA
<213> Pinus radiata

<400> 1875
agagattcag ggggtgtgagg aggagatcgt gggggaaatg ggtagcggag atcaggatgc 60
tccgatgccg atcccgcgta tgggtgggat cctaccacac tgcagaacag gcagctcgtg 120
cctatgatgc tgcctctttc tgcctacgag gtctgtctgc tttcctcaac ttccctgaat 180
ctccacctgc tcagtttctc ccatatcccc tgcgccctct tcatgatatt catct 235

<210> 1876
<211> 416
<212> DNA
<213> Pinus radiata

<400> 1876
gattgtatga gatatcagaa aataaaaactg attttaattc tgcaggcatc tcagaaaaac 60
aaaactggct ttacttctac aggcattctca gaaaataaaa ctggttttac ttctgcacag 120
atgtcagaat aacaaaactc gttttacttt tgcagacatc tcagacaata aaactggttg 180
gttttagtac ttgccagac atctgagaaa aacaaaaccg gttttacttc tgccgccggt 240
aaggttttac aagcttgaat tcaaacttta taatcgggag ctgtttatat gtccaacgga 300
aaatgtgagg tcctacacac gctgacgcgc gagctcgtcg ccagttataa acgtaccatg 360
gaagccgtag ggcacccggg agggcagttt gacggaggcc acgacgtcga ggcccc 416

<210> 1877
<211> 320
<212> DNA
<213> Pinus radiata

<400> 1877
gcacaatggt gaaggggtggg atagaggggtc tnatgttgat cacaaagagt ttctcagagg 60
gattggaggg tggagaatga gtatgccaaa gctctgtgat gtttgtcagg tatcaagctc 120
tgtaatatat tgcagagctc atactgcaca gctttgtcta gtctgtgatg ctaaaattca 180
tggtggtagc aaggcttcgt tgtgtcatga aagagtttgg gtttgtgaag natgtgagca 240
ggccccagct gtggttacat gcaaggcaga tgcagcagct ttatgtgtag cctgtgatac 300
tgatattcat tctgccaatc 320

<210> 1878
<211> 456
<212> DNA
<213> Pinus radiata

<400> 1878
ctttggattt catggggtc tttcactgac tccgccgtga aatatcacta atttcgcttc 60
agagtttctg caatattgcc aaatatggag aattttcccg agcaggaacc tgataatgcc 120
attgctctac cacacgaaga tcgcggttcc cgccaattta agggaatccg actgcgaaaa 180
tggtggagct gggtcatctga aatccggata ccgagatcca gaaagaagat atggcttggc 240
tcatacacta ccccgagca ggctgcccgc gcttacgacg ccgcagtgtg ttgtctgaga 300
gggcgcaatg ccgaattcaa cttttctgtc cctgacattc cgactccgtc ccccttttcc 360
cgtgagcaaa ttcagcatgc cgccgccgaa tatgcgttga gccaggcccc ttcgagtttg 420
gcctctttca taggttcccc ctccgagtcg tcttcg 456

<210> 1879
<211> 491
<212> DNA
<213> Pinus radiata

<400> 1879
ccggagtgt tagatggagt ttacgtccgc aatggcgcg atccccggtt caaaccgccg 60
ggcgccacc atttatttga cggcgatgga atgatacatg ccgtgacgct gagacacggg 120
aaggctagtt acagttgccg gttcacggag accgaaaggc tcgttagcga ggagcgggcg 180
ggcgagctg tttaccgaa gccatccgg caactccacg gccacggcgg gctggtgcgc 240
ctgctgctgc atggtgcccg ggggctctgc gggctggtca acaccgggaa gggcatgggc 300
gtggctaatt ccgggctggc cttctttaac ggccgtctgc tcgctatgtc cgaagacgat 360
ctcccgatg ccgtcagggg gacgggtgac ggcgatctgg tgacgacggg caggttcgat 420
ttcgacgggc agcttcacgg gtcgtcatcg gtcaccgcgc accccagcat tgaccccgac 480
acgggcgagc t 491

<210> 1880
<211> 310
<212> DNA
<213> Pinus radiata

<400> 1880
gtgagttcta ggcattgagt tgcagtatcg caaatggcct acttacaagc tttgaggaat 60
gctggcgcaa cccttagaca atttgacaga ttagaatcaa tggagcttca gaagacttca 120
ccttaccac atcttcgcca ttatcgggtc accttgcccc cttcacctcc tcctcttccc 180
ccacctccac cacctcctcc tccattgtct ctcacccctt ctcctagtta tggatctgca 240
acttttccct ccagcatccc agtcaatcga agcatctaca gatgtccgta tcagcaatgc 300
tcaccatcat 310

<210> 1881
<211> 251
<212> DNA
<213> Pinus radiata

<400> 1881
ctggntcctc cgatctcgct ccctgtaaca cgccccggtc agaaatgggtg aaggaggagg 60
attgtaaggt gcccgaagag gccggaatcg tgaaggaatt tcaagcctgg actatgccc 120
agccctgcaa cgtgtgcagg atcgcgagcg ctctcgctcta ttgcagggcc gacgctgctt 180
atctctgctc cggctgcgac gtcaaagttc acggcgccaa caagctggcg tcgcgccacg 240
agagggtgtg g 251

<210> 1882
<211> 351
<212> DNA
<213> Pinus radiata

<400> 1882
cacgagggcc agagctgtgg ctgttcccag aagaggatat catcagctgt ccagtttgtc 60
ctaagagact acagaagaag aatatagaag atgggtagat ccccttgccc cccaaaagaa 120
gcgcttaacc gtggggcctg gacaggcatg gaggatacga ttctcaccga gtacattcga 180
gttcatggca gtgggtggctg gaaagctatc tccaaaagag caggtgagtg tcaataaaaa 240
tttaatatgca attcttttta ttagcagaag gaagtagcaa tctcccagggt tatatataac 300
aattcatcag tcatatatac cagaaattta tagtcgagtc taagaggggag a 351

<210> 1883
<211> 450
<212> DNA
<213> Pinus radiata

<400> 1883
tcccttatca cagaatagaa actgatggct agtcagatcc cagaatgaac cctctaaatt 60
aaatgtagcc cgcctagaac attagaagaa gcaaaagcaa acattcatga tcaataaatg 120
tagattaaaa ccaccggcat tgatgtgtag tagaagttga atatggtcag gcatacttgt 180
tctgtttgct gtggctgggt tcaagttcgt agagctttcc tcggccagaa aaaacgatga 240
gcgccacctc tgcacgcac agcactgaaa gctcgaaggc tttcttcac agaccgcctc 300
ggcgcttcca gaaggtcacc tgcctgcgca cgctattctc gatcttcttg gtttctattt 360
taccgcgccc cattttcagc aaaatcccaa aatctgagta tgggcaggcg ttgaacttaa 420
atttgctcta tgaacagaat taccgagctt 450

<210> 1884
<211> 386
<212> DNA
<213> Pinus radiata

<400> 1884
aaatgatcag aggcggttct ccagttattc acaacaaaga aaagggtccc cgcttcgggc 60
ttctgcccga atatgcttct gacgagagt agctgaaatg gatcgaggtc ccgattgtct 120
tctgctttca tctctggaac gcctgggaag aaggagaaga cgaggttgct gtcacggct 180
cctgtatgac cccgccggac gccattttca acgaatctga cagcgcgctg cggagtgttc 240
tgtcggaat tcggctcaat ctcaaaaccg gcttgctcac cagacgcgag atcacgccga 300
tgaatctcga gactacttct agagcggccg cgggcccac gattttccac ccgggtgggg 360
taccaggtaa gtgtacccaa ttcgcc 386

<210> 1885
<211> 190
<212> DNA
<213> Pinus radiata

<400> 1885
aaatgatcag aggcggttct ccagttattc acaacaaaga aaagggtccc cgcttcgggc 60
ttctgcccga atatgcttct gacgagagt agctgaaatg gatcgaggtc ccgattgtct 120

| | |
|---|-----|
| tctgctttca tctctggaac gcctgggaag aaggagaaga cgaggttgtc gtcacgagct | 180 |
| cctgtatgac | 190 |

<210> 1886
 <211> 412
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 1886 | |
| ggtcccagcc gccttcnngg gcggttcgtgc cgcaagatat gcttctgacg agagtgcgct | 60 |
| gaaatggntc gaggtcccgg attgcntctg cnttcatctc tggaacgcct gggaagaagg | 120 |
| agaagacgag gttgtcgtca tcggctcctg tatgaccccg ccggacgcca ttttcaacga | 180 |
| atctgacagc gcgctgcgga gtgttctgtc ggaaattcgg ctcaatctca aaaccggctt | 240 |
| gtccaccaga cgcgagatca cgccgatgaa tctcgagagt acttctagag cggccgcggg | 300 |
| cccacgatt ttccaccgg gtgggggtacc aggtaagtgt acccaattcg ccctatacgt | 360 |
| gagtcgtatt acaattcacc tggccgtcgt tttaacaaccg ncntgactgg ga | 412 |

<210> 1887
 <211> 329
 <212> DNA
 <213> Pinus radiata

| | |
|---|-----|
| <400> 1887 | |
| atcagaaggc ggttctccag ttattcacaa caaagaaaag gtcccgcgct tcgggcttct | 60 |
| gcccaaatat gcttctgacg agagtgcgct gaaatggatc gaggtcccgg attgcttctg | 120 |
| ctttcatctc tggaacgcct gggaagaagg agaagacgag gttgtcgtca tcggctcctg | 180 |
| tatgaccccg ccggacgcca ttttcaacga atctgacagc gcgctgcgga gtgttctgtc | 240 |
| ggaaattcgg ctcaatctca aaaccggctt gtccaccaga cgcgagatca cgccgatgaa | 300 |
| tctcgagagt acttctagaa gcggccggc | 329 |

<210> 1888
 <211> 101
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 1888 | |
| aaatgatcag aggcgggttct ccagttattc acaacaaaga aaaggtcccg cgcttcgggc | 60 |
| ttctgcccaa atatgcttct gacgagagtg agctgaaatg g | 101 |

<210> 1889
 <211> 326
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 1889 | |
| atgatcagag gcggttctcc agttattcac aacaaagaaa aggtcccgcg cttcgggctt | 60 |
| ctgccc aaat atgcttctna cgagagtgcg ctgaaatgga tcgaggtccc ggattgcttc | 120 |
| tgctttcatc tctggaacgc ctgggaagaa ggagaagacg aggttgcgt catcggtcc | 180 |
| tgtatgacct cgtggacgc cattttcaac gaatctgaca gcgcgtgcg gagtgttctg | 240 |
| tcggaaattc ggctcaatct caaaaccggc ttgtccacca gacgcgagat cacgccgatg | 300 |
| aatctcgaga gtacttctag agcgg | 326 |

<210> 1890
 <211> 246
 <212> DNA
 <213> Pinus radiata

<400> 1890
agctgaaatg gatcgacgtc ccggattgct tctgctttca tctctggaac gcctgggaag 60
aaggagaaga cgagggttgc gtcacgaggt cctgtatgac cccgccggac gccattttca 120
acgaatctga cagcgcgctg cggagtgttc tgtcggaaat tcggctcaat ctcaaaaccg 180
gcttgtccac cagacgcgag atcacgccga tgaatctcga gactacttct agagcggccg 240
cggggc 246

<210> 1891
<211> 238
<212> DNA
<213> Pinus radiata

<400> 1891
aaatgatcag aggcggttct ccagttattc acaacaaaga aaagggtccg cgcttcgggc 60
ttctgcccac atatgcttct gacgagagtg agctgaaatg gatcgaggtc ccggattgct 120
tctgctttca tctctggaac gcctgggaag aaggagaaga cgagggttgc gtcacgaggt 180
cctgtatgac cccgccggac gccattttca acgaatctga cagcgcgctg cggagtgt 238

<210> 1892
<211> 349
<212> DNA
<213> Pinus radiata

<400> 1892
tgtaccggaa aattccaaac aaataatcaa ccatggactc atattgccgg agatgggctc 60
agtggacagc gggcgcgagc gcacgagagc aattttgtcc gatgattgtg tgaaattcga 120
atgccgatat tggtgtaggg ttttcccgac gtctcaggtc ctccggcgcc accagaacgc 180
ccataaacga gaacggcgcc gggcaatgac gaggtttcag agatcgccct ctgacagttc 240
aaactattca ggaaaacaga atagtattga tctgttttagc cgtgagagag ttccccgggc 300
ttctctcctt tcaccacacg gtacgaggga tcatgttgtt tgcagtgc 349

<210> 1893
<211> 417
<212> DNA
<213> Pinus radiata

<400> 1893
gaagaagaag aagaagaaag ccccggtggtt tcaggggcgaa tgagccgtag cgcctcagaa 60
tgggccttcc agaagtttct cagttttgat ggttccaaga ttccgctcaga agatggagaa 120
ggcgaacaga agcctctcgg tggttaaagat cctctgcttc acggtcatat ggacaacgct 180
cctgcggcgc tcagtcctct ctttgccgaa gtcaaggatg aggttcttct tcctactgac 240
cctcgagatt acgaggcctt cctcaagcgg aggtttaacc ttgcctgcgc ggcagtcgcc 300
ttcactcggg ttacaggaat tagctctcca ggccctgggc cctcaacagt ggatgcaaac 360
caatctcaga acactttagg atcagaaaga gtgcacgctt ggtatcccaa tcttccg 417

<210> 1894
<211> 456
<212> DNA
<213> Pinus radiata

<400> 1894
ggaaggcaat gagagtgatc tctcaagggt aatgaagaag gcaaggcgtg agagaggatc 60
aacagcaaag gaacggatta gtaaaatgcc tcctgtgtct gctggaaaac ggagttctat 120
ctacagaggc gtcacaaggc atagatggac aggacgatat gaagctcatc tttgggacaa 180
aagtacttgg aaccagaacc aaaataaaaaa gggcaagcaa gtgtacctag gtgcctatga 240
tgaggaggag gctgcagcca gagcttatga ccttgccgct ctgaaatatt ggggtcctgg 300
aactctcatt aattttcctg ttagtgacta tgctagagat attgaagaga tgcagagcat 360

| | |
|--|-----|
| ttcaagggaa gatttcctgg cttctctcag acggaaaagt agtggggtttt caaggggaat | 420 |
| gtcaaaatac cgtggactgc caagcaatca caaact | 456 |

<210> 1895
 <211> 456
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|--|-----|--|--|--|--|--|
| <400> 1895 | | | | | | |
| ggaaggcaat gagagtgate tcctcaaggg aatgaagaag gcaaggcgtg agagaggatc | 60 | | | | | |
| aacagcaaag gaacggatta gtaaaatgcc tccctgtgct gctggaaaac ggagttctat | 120 | | | | | |
| ctacagaggc gtcacaaggc atagatggac aggacgatat gaagctcatc tttgggacaa | 180 | | | | | |
| aagtacttgg aaccagaacc aaaataaaaa gggcaagcaa gtgtacctag gtgcctatga | 240 | | | | | |
| tgaggaggag gctgcagcca gagcttatga ccttgccgct ctgaaatatt ggggtcctgg | 300 | | | | | |
| aactctcatt aattttcctg ttagtgacta tgctagagat attgaagaga tgcagagcat | 360 | | | | | |
| ttcaagggaa gatttcctgg cttctctcag acggaaaagt agtggggtttt caaggggaat | 420 | | | | | |
| gtcaaaatac cgtggactgc caagcaatca caaact | 456 | | | | | |

<210> 1896
 <211> 388
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|---|-----|--|--|--|--|--|
| <400> 1896 | | | | | | |
| gtaaatcaat acctggctcag catcctaatt tagcattcaa tgttggcagt attagatcca | 60 | | | | | |
| accagcagca gcttcagcaa cagcatgate tgccccctct ccccaagcca gcaacaatgc | 120 | | | | | |
| cttttgctc ttcagtaagt atagcaaata attcccagat gcctgggtta gggtaagag | 180 | | | | | |
| gggtaatcag gatgacagat gcattccatca aaagtctcct agctcaagggt ggtgggctgc | 240 | | | | | |
| agactggagt tggcatgact gggtttagaca ctaggggagt tgctcttcag acagtatctc | 300 | | | | | |
| ctgctaacca tatatctccg gatgtaatct cttaggaacac gatggattcg tcttcactct | 360 | | | | | |
| caccagttcc ttatccgttt ggccgggg | 388 | | | | | |

<210> 1897
 <211> 202
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|--|-----|--|--|--|--|--|
| <400> 1897 | | | | | | |
| atgcgaaaca tgctcaaaca cccccaacat catgggaagg tggaagtggg gctgattcgg | 60 | | | | | |
| aggttaacat gttgaaggat tacgcttcag aggactggat tacagggtgtt gaccgcttcc | 120 | | | | | |
| ggttgagctt gggtgaattt cttgataagt tgaataagta tgcggagtcc tctgttcata | 180 | | | | | |
| tgtacgtgtc ccttgaaaag gc | 202 | | | | | |

<210> 1898
 <211> 289
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|--|-----|--|--|--|--|--|
| <400> 1898 | | | | | | |
| gttgaatggg gattcaaaca atggcttcac aaggcggcgg cggcagcagc ggtaatgcc | 60 | | | | | |
| gaggtggcgg tggcaataat ggaaaatcca ctgaagttca gccattgact cggcagaatt | 120 | | | | | |
| caatatacag tctcactctt gatgaggttc aaaaccagtt aggtgattta gggaagccat | 180 | | | | | |
| tgagcagcat gaacctggac gagcttttga agaattgtctg gacagctgag gccggtcagt | 240 | | | | | |
| caatgtttat ggatgtttgag ggcacggctg tggctaataa aaatgctct | 289 | | | | | |

<210> 1899
 <211> 477

<212> DNA
<213> Eucalyptus grandis

<400> 1899

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| cttgaaatcg | ggcgtgcccc | gctcgatcgc | agcttcaage | agctcaaaaa | gactgtatat | 60 |
| cactcgacga | gtgtgctgag | cacattgagc | tcgagctggg | catcaaagcc | gccattggca | 120 |
| gtgaagtacc | agctcaaccc | cggctcactc | actgaatcag | atgattcaaa | gagcctctgc | 180 |
| tccactctgg | acaagctctt | ggcttgggag | aagaagctct | atgaggaagt | gaaggctaga | 240 |
| gaagggtgaga | agatagagca | tgaaaagaag | ttgtcagtac | ttcagagcca | ggaaggcaag | 300 |
| ggagaagatg | aaaccaaggt | agacaagacc | aaggcctcat | taaataagtt | gcaagcacta | 360 |
| atagctgtta | cgtcggaggc | tgtctctaca | acttcaaagt | caattattgg | cctcagagac | 420 |
| agtagacttg | tcccgcagct | tgttgaactc | tgccatgggt | tcatgtacat | gtggagg | 477 |

<210> 1900

<211> 1243

<212> DNA

<213> Eucalyptus grandis

<400> 1900

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| ccccctctt | cctcagtcag | ccagttctct | tctctctctc | tctcacatct | ctagtttcag | 60 |
| ccttttttct | ccatttggcc | aagcagcgcc | cgccgcgcga | cccgaaggct | tccggatctg | 120 |
| gtgctcggtg | ctattccgct | cgtcgatagg | aggctaggct | acgctgaaag | aagttgatga | 180 |
| gcgcaatttc | actgatggag | tggaaatgca | aacctcctct | gcagtgggaa | tggaagaatc | 240 |
| ttatgatgtt | cggttcaaaa | gcgactgaaa | cctctaagcc | gctgcgagcg | actgattggg | 300 |
| gaatcgaggc | ggaggagctg | attgaccccg | ggtccttatt | tctgtatgag | aatgggtggcg | 360 |
| gcagcagcag | ttgtaccagc | attgatccgg | gttacacttc | tgtgtccaag | agctcgaaat | 420 |
| cggcttctgt | caattcttcg | tctacggacg | aattgaaaat | ctcgaaattc | tctgtggagg | 480 |
| cgcataaagg | cttttctctg | cagagtagca | agaaagaatt | ggcgggtgaat | gattttaccg | 540 |
| gaatgtcacc | ggcactcgag | ccttcgggtct | gctctgggtga | gccactgctc | agtctaaagc | 600 |
| tcggtaaaaag | gatataattt | gaaaatacta | ttgacaagga | tcattgtgaag | acccaagacc | 660 |
| ttccttcggg | catgaaatca | cctgatactc | cagcaaagag | aaacaaatcc | aactgtcagg | 720 |
| gtacgtccgc | cccacgctgc | caagttgaag | gctgtaacct | tgacctctct | tcagctaaag | 780 |
| attaccaccg | caagcataga | gtttgtgaga | gtcactctaa | atgccctaag | gtcatcgtca | 840 |
| gtggatataga | gcgtcggttt | tgtcagcaat | gcagcagggt | tcattgggcta | tctgagtttg | 900 |
| atgaaaagaa | gcgtagctgt | cgcaagcgcc | tatctgatca | caatgcaaga | cgtcgcaagc | 960 |
| ccccgccaga | tgtgaccag | ttgaatccgg | ctagactgtc | tgactgtttt | tatgggtggga | 1020 |
| tgcagcagtt | gaatccagtc | ttgagcagag | ctccagctat | ccacaccagg | tctactgcta | 1080 |
| gttttaaatg | ggcagatata | caggacacta | agctcataga | gaaagggtccg | aagcttccaa | 1140 |
| taggcggagg | tgttggtgag | tgtatcacta | tccaagcaa | tgggataccg | gacaccctca | 1200 |
| agtccactgg | attgggcaaa | agctataacg | aacttctatc | atc | | 1243 |

<210> 1901

<211> 366

<212> DNA

<213> Eucalyptus grandis

<400> 1901

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|-----|
| aaaaagtata | tatacctcgg | cctatttgat | agtgaagtag | aggcagcaag | ggcgtatgac | 60 |
| aaggcagcta | tcaaatgtaa | tggaaagagag | gctgtgacca | actttgaacc | tagtacgtac | 120 |
| gatggagaga | tgattgcaaa | agccagcaat | gaaaatagca | tctatggtga | ccatgggtctt | 180 |
| gatctcaatc | tcgggatata | agcttcttcc | aggggaatgg | tggaaacctt | agagccctcg | 240 |
| gacgacatgc | gtcagggaag | tagtttaagg | gtaggaaact | ctgctgcata | ctgggggtgat | 300 |
| ccatctgttg | aaggtttatc | gatgacatct | ggacaacctc | tccttgacgg | gtgttttatcc | 360 |
| taccgt | | | | | | 366 |

<210> 1902

<211> 466

<212> DNA
<213> Pinus radiata

<400> 1902

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttaattcatg | gcggcgggcg | cgacgactac | gttgggttgt | gcgaaggtgg | atttgatacg | 60 |
| gctcatgcgg | ctgcgagagc | ttacgacagg | gcagctatca | agtttcgagg | agttgaagct | 120 |
| gatataaatt | ttactctcac | cgactatcaa | gaagatttag | accagacgag | caagctctct | 180 |
| aaagaagagt | ttgtgcatat | tctccgtcgt | caaagtactg | gtttctctcg | tggaagttcc | 240 |
| aagtatagag | gcgttaccct | gcacaagtgt | gggcgatggg | aagccagaat | gggtcaattc | 300 |
| ctaggaaaaa | agtatatata | tttgggatta | tttgacagtg | aagaggaggc | tgcaagggca | 360 |
| tatgataagg | ctgctatcag | gtgcaatgga | aaggaggcag | taacgaactt | tgatcctagc | 420 |
| ttatatgaaa | aagaaattct | tgaagaaaga | agagagagtc | agactt | | 466 |

<210> 1903
<211> 240
<212> DNA
<213> Pinus radiata

<400> 1903

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gcttatttga | atgcctgaca | ctaactatgg | aagcgaacag | acaaatgctt | gcaaaaaaca | 60 |
| gaaaagaata | cgttccaagg | attcaggaga | agatgggtgaa | gatagacaga | gagaacatcc | 120 |
| tttcattgtt | actgagcccg | gtgaacttgc | aagagggaaa | aagaatgggt | tagactatct | 180 |
| ctttgatctt | tatgaacagt | gcgggaaatt | tctgctggat | gtgcaacata | ttgcgaagga | 240 |

<210> 1904
<211> 495
<212> DNA
<213> Pinus radiata

<400> 1904

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|-----|
| gccatggcaa | tagatthttgc | aggacgggaa | tctcctcgtg | tgcaggctcg | cagatacccc | 60 |
| attgccaggg | cgagggttgt | aaggcaaaact | tgagcagtgc | caaacactac | catcgccggc | 120 |
| ataagggttt | tgaattgcac | tcgaaggctt | ctactgttat | tgtgggtggg | ttcattcagc | 180 |
| ggttctgcca | acaatgtagc | agatttcac | caagatctga | attcgacgag | ggaaaacgaa | 240 |
| gctgcagaaa | gcgccttgct | gaccacaaca | gacgaaggag | aaaacctcag | ccaagtacat | 300 |
| gtgttacatc | acaatctcag | gctgggacaa | cagggtttaga | aaatgataac | cagacaacta | 360 |
| aaggatcatc | aggtcacatt | acaacggctg | ttcagaatac | accgaacatt | agcagaagca | 420 |
| ctagtagtac | tagtccgtcc | ttgattacat | cagtaccgat | gatgatgttc | ccaataaact | 480 |
| ataaaggaca | tagtc | | | | | 495 |

<210> 1905
<211> 377
<212> DNA
<213> Eucalyptus grandis

<400> 1905

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| taacactaca | ttcatcaccc | caaacagcaa | acggatcatc | tcgcacaatc | catcaagtgt | 60 |
| agatcgaccg | gcggaatctg | cagcactggc | aaagaggatg | aggagggtc | acattcagaa | 120 |
| tatagcgggg | gattgcaact | tgaaagacag | attacatata | caaagtggaa | tcacatatag | 180 |
| tcagcaacaa | agagctccct | tttccacatt | ggcgcagaa | ttccgcacta | gcaattcgcc | 240 |
| ccccagcaa | tctgaaagca | acaaaaaga | agccaccgat | gatgctcatg | gcaccaacgt | 300 |
| ccaaggaaca | tttcttaaaa | aggatgatcc | aaaagttact | gctctgattc | aacaagccga | 360 |
| gctgctcagt | tcctttg | | | | | 377 |

<210> 1906
<211> 377
<212> DNA

<213> Eucalyptus grandis

<400> 1906

| | | | | | | |
|-------------|-------------|-------------|------------|------------|-------------|-----|
| gtgatttttag | tgctcgatag | tttgaaaagg | gcatcaatac | agtcaaacga | gataaaaaga | 60 |
| cataacatgc | aaaactcaat | acatgattct | cagaaaagac | catcatcttt | aattcagtca | 120 |
| aacgaggctg | tttttacgca | aacttcgggc | ataagctgtg | ccttgcaatc | gtttgttaaa | 180 |
| cctccaaatg | ctaagggtcac | ggtcacattc | ctctctgac | tttgagcagc | tcattggcacc | 240 |
| aacgtccaag | gaacatttct | taaaaaggat | gatccaaaag | ttactgctct | gattcaacaa | 300 |
| gccgagctgc | tcagttccct | tgccggtgaaa | gtcaatgcag | ataacatgga | ccagagtctt | 360 |
| gaaaatgctt | ggaaggg | | | | | 377 |

<210> 1907

<211> 1668

<212> DNA

<213> Pinus radiata

<400> 1907

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| agctgtaagc | tacctacgaa | gtggaatcga | agagagagag | agtgagaggc | taactaataa | 60 |
| gatgaatatg | aagattcgaa | cctccgacac | cagtactcct | gatgatcagc | aacagcatag | 120 |
| cggcgccgtg | aaagtggcga | ttccggccgt | gtcgggggat | tcggggacga | ttgggttaaa | 180 |
| gctgggcaag | cggacctatt | ttgaggcggg | gaaggcaatt | ccgacagcga | ccccctcgcc | 240 |
| gtcttgctgt | ccggctgcca | agaagcagca | gtctgctgtg | cagggaacgc | atatgggtgcc | 300 |
| gcggtgtcag | gtggagggat | gagagatgga | actcaccgcc | gcaaaggact | accaccgccg | 360 |
| ccacaaggtc | tgcgagctcc | actccaagtt | tccaagggtc | atcgtcaacg | ggatcgagca | 420 |
| gcgcttctgt | cagcaatgta | gcaggtttca | tacgttgtct | gagtttgatg | aagggaagcg | 480 |
| gagctgtcgg | aggcgtctag | ctggccacaa | ccagcggcgt | aggaaacccc | aacttaattc | 540 |
| aacggcgatg | aaagctgcaa | gatttgcttc | cactttctat | gatgacgggc | gacttagcag | 600 |
| cactctgatg | gctagatcac | ctttcatgca | tccacggata | gcttcaaact | tggaggagaa | 660 |
| ttcgctcgat | ttcaaacttg | gaggatatgg | aaaaggagct | tggccgagga | ttaaggctga | 720 |
| ggatgtatca | tcattatgatg | ggcaattatc | aaccaaatac | cctctcccgt | cataatgctg | 780 |
| aaagattgct | tttcttttta | cagggttcta | agactgtacc | tgggtggagct | attaatcaaa | 840 |
| gcactcatca | gtacaggcaa | agctccaggg | atcatgtggg | ccaatccttg | accttgctcat | 900 |
| cctgctcggg | agaaaatcta | acaggtttaa | atgttatatc | tgccccacat | ggtttatcag | 960 |
| gagtcctcga | ctctggctgt | gcgcactagc | ttctgtcaat | tcaatccggg | ggcccaagggt | 1020 |
| cctcaggatc | agcttcattt | gatatgacca | cgcggtcagg | tctcacaatg | gatcaactta | 1080 |
| tactagagga | tcaacctctt | atggctcaag | caccattgat | gcaaggagta | caacacaact | 1140 |
| ttgggtcattt | tgcaagaagc | aagttactaa | caatgtatcc | ccagtcctct | actaatcttg | 1200 |
| caacagggtg | gttccctgca | gctactgtga | attctatgga | taagcagcac | caaggctcatc | 1260 |
| cactcgtttc | cgatgcaggc | caaattggtaa | actttggagg | aaatatattt | ggcttgctgc | 1320 |
| aggggagcag | tttcagaggc | tctcaagctg | caagttcaca | agatattcaa | ggcaccatag | 1380 |
| atctgatgtg | cacgtcctcg | gaaacacaaa | ctaattgattc | tcattgatcaa | cttggcatgg | 1440 |
| tgcaccaggg | aagtaaacag | tttactgact | tgcagttggt | gaggtctttt | gaatcatcta | 1500 |
| tttatgacac | tcattcaactg | ctgtagctct | aatctggttg | ttcttcgggc | atgttttctt | 1560 |
| tgccctcaga | cttgaagata | actgttaaaa | cttcattatg | acaattatct | gtaccctcta | 1620 |
| aatgcagaca | attgctttca | attacccttg | cttattttcaa | aaaaaaaa | | 1668 |

<210> 1908

<211> 821

<212> DNA

<213> Eucalyptus grandis

<400> 1908

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctctctctct | ctctctctct | ctctttcttt | ctttctttct | ctctctagca | gaggcacaga | 60 |
| ggcgcgagca | gggactgat | gatgacgact | ggggtagctc | caatgaatgg | gctctagaga | 120 |
| acctcgctca | tggacgtggg | ttcgggctcg | tggacgacgg | agtccgggtc | ctcttctcct | 180 |
| ccccctctcg | agtcctctca | cggcctcaag | ttcggccaga | aaatctactt | ccagaataat | 240 |
| aacagtagta | ataatgccgc | cgcacccaag | aacggctccg | gctccggctc | cggctcctcc | 300 |

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| tccgccgccc | cgccccgcgc | cggggtcgggc | acgcccccca | agaagggtgag | ggcctccgcc | 360 |
| ggcgggggcg | gctgcggggc | gatccagggc | gggcagcccc | cgagggtgcca | ggtggaaggc | 420 |
| tgccgggtgg | atctgagcga | tgccaaggct | tactattcca | ggcacaagggt | gtgcggcatg | 480 |
| cactccaagt | ccgccaccgt | catcgtcgcc | ggcatcgagc | agagggttctg | ccagcagtcg | 540 |
| agcagattcc | atcagcttac | tgaatttgac | caagggaaac | gaagctgtcg | tagacgtttg | 600 |
| gctggtcaca | atgagcgccg | gaggaagccc | ccacctgggt | cgctactatc | ctctcgctat | 660 |
| gggcgactgc | aatcctctat | atttgagaac | accaccagag | tgggtagttt | tctgatggat | 720 |
| ttcacagcat | acccgaagca | tgcatgggtc | gcgccacgtt | tttctgagcg | cacgacacct | 780 |
| ggagatctag | tccccggacc | aggaaaggtc | tatcctcatc | c | | 821 |

<210> 1909
 <211> 105
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|-------------|-------------|-----|
| <400> 1909 | | | | | | |
| gggaagagga | gcgtagagtg | ggattcgaac | gattggaagt | gggacgggtga | tctgttcgctc | 60 |
| gctaggccgc | tgaaccgggt | cccgtccgat | ttccccggcc | ggcag | | 105 |

<210> 1910
 <211> 338
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1910 | | | | | | |
| cagaagagac | ctgccatgga | aacacatddd | gcaggacaga | aatttcatca | ttcacaggct | 60 |
| cacagatacc | ccagtgccag | tccgagggtt | gtaaagcaaa | cttgagcagt | gccaaacact | 120 |
| accatcgccg | acataaagtt | tgcaattcc | actctaaggc | tcctacggtc | gttgttgggc | 180 |
| gtcagattca | gcggttttgc | caacagtgtg | gtagattttc | tcagacatct | gaatttgacg | 240 |
| gaggaaagcg | gagctgcaga | aagcgccctg | ctgaccacaa | cagacgccgg | cggaaccta | 300 |
| aaccgagtca | atgtactaca | tcccaatgtc | aggcaggg | | | 338 |

<210> 1911
 <211> 465
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1911 | | | | | | |
| tcgacatggt | cctttgcatt | ttcttgaaga | agctgtgatt | gttcgaccga | cacgttactc | 60 |
| attcacattg | cctctccatc | tccttcaatc | aggattccag | aattgcccgt | cgaaatggat | 120 |
| gaagtccaag | tcaagggtcg | cattcagagc | acaaatgtca | gtgccgacga | gccaggccct | 180 |
| gcgaagcgcc | agggtttcga | gctcgccaag | agccctgaaa | acgtggcttc | gaaatccact | 240 |
| gcgctctcct | ctccgaaaaa | acccaaagct | gcttcttctc | cttcttcttc | gtcgccgaga | 300 |
| gcgcagcctc | ccgcttgcca | ggtggagaaa | tgcgcgccgg | atcttgctga | tgccaaagag | 360 |
| tactatagga | ggcacagggt | ttgcgagcaa | cattcaaagg | ctcgaattgt | gctcgttctt | 420 |
| ggcctccagc | aacgcttctg | ccagcaatgt | agcagattcc | atgtg | | 465 |

<210> 1912
 <211> 509
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1912 | | | | | | |
| ctccttataa | aagtagctcc | cctcttgact | ccaggcggtc | ttcccagtc | ataacgatac | 60 |
| ggattacacc | cacgcacccc | atgtcttcca | cctcatcgta | ttcttctccc | ttccctgaca | 120 |
| caccatcaca | gtctgccgct | gtgcgcccga | catctaccgc | agacgattct | tcggtcatgg | 180 |
| aacctccacg | taagcgagcc | agggtgtgat | ttaacgtgta | acagcgaaga | gaggccaggg | 240 |

cccaccgtaa tcgaattgcc gctcaaaact ctgcgataa acgcaaggcg caattcactt 300
 acatggagca gcgcgtggca caactggagg aagagaacca acgactacga gcaggcatgg 360
 gcctctctca attcacgcca gccgacaacg acaagttcgt cagcctcgag agagaatcag 420
 tacaggcccg cgagaacaga gagctcaagg agaggatcaa gagtctagag agcgggtggt 480
 cggccgtcat caaagcgttg caggcctca 509

<210> 1913
 <211> 151
 <212> PRT
 <213> Pinus radiata

<400> 1913
 Glu Gly Asn Glu Ser Asp Leu Leu Lys Gly Met Lys Lys Ala Arg Arg
 1 5 10 15
 Glu Arg Gly Ser Thr Ala Lys Glu Arg Ile Ser Lys Met Pro Pro Cys
 20 25 30
 Ala Ala Gly Lys Arg Ser Ser Ile Tyr Arg Gly Val Thr Arg His Arg
 35 40 45
 Trp Thr Gly Arg Tyr Glu Ala His Leu Trp Asp Lys Ser Thr Trp Asn
 50 55 60
 Gln Asn Gln Asn Lys Lys Gly Lys Gln Val Tyr Leu Gly Ala Tyr Asp
 65 70 75 80
 Glu Glu Glu Ala Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu Lys Tyr
 85 90 95
 Trp Gly Pro Gly Thr Leu Ile Asn Phe Pro Val Ser Asp Tyr Ala Arg
 100 105 110
 Asp Ile Glu Glu Met Gln Ser Ile Ser Arg Glu Asp Phe Leu Ala Ser
 115 120 125
 Leu Arg Arg Lys Ser Ser Gly Phe Ser Arg Gly Met Ser Lys Tyr Arg
 130 135 140
 Gly Leu Pro Ser Asn His Lys
 145 150

<210> 1914
 <211> 128
 <212> PRT
 <213> Eucalyptus grandis

<400> 1914
 Lys Ser Ile Pro Gly Gln His Pro Asn Leu Ala Phe Asn Val Gly Ser
 1 5 10 15
 Ile Arg Ser Asn Gln Gln Gln Leu Gln Gln His Asp Leu Pro Leu
 20 25 30
 Leu Pro Lys Pro Ala Thr Met Pro Phe Ala Ser Ser Val Ser Ile Ala
 35 40 45
 Asn Asn Ser Gln Met Pro Gly Leu Gly Ser Arg Gly Val Ile Arg Met
 50 55 60
 Thr Asp Ala Ser Ile Lys Ser Ser Leu Ala Gln Gly Gly Gly Leu Gln
 65 70 75 80
 Thr Gly Val Gly Met Thr Gly Leu Asp Thr Arg Gly Val Ala Leu Gln
 85 90 95
 Thr Val Ser Pro Ala Asn His Ile Ser Pro Asp Val Ile Ser Arg Asn
 100 105 110
 Thr Met Asp Ser Ser Ser Leu Ser Pro Val Pro Tyr Pro Phe Gly Arg
 115 120 125

<210> 1915

<211> 66
 <212> PRT
 <213> Eucalyptus grandis

<400> 1915
 Ala Lys His Ala Gln Thr Pro Pro Thr Ser Trp Glu Gly Gly Ser Gly
 1 5 10 15
 Ala Asp Ser Glu Val Asn Met Leu Lys Asp Tyr Ala Ser Glu Asp Trp
 20 25 30
 Ile Thr Gly Val Asp Arg Phe Arg Leu Ser Leu Val Glu Phe Leu Asp
 35 40 45
 Lys Leu Asn Lys Tyr Ala Glu Ser Ser Val His Met Tyr Val Ser Leu
 50 55 60
 Glu Lys
 65

<210> 1916
 <211> 89
 <212> PRT
 <213> Eucalyptus grandis

<400> 1916
 Met Ala Ser Gln Gly Gly Gly Gly Ser Ser Gly Asn Ala Arg Gly Gly
 1 5 10 15
 Gly Gly Asn Asn Gly Lys Ser Thr Glu Val Gln Pro Leu Thr Arg Gln
 20 25 30
 Asn Ser Ile Tyr Ser Leu Thr Leu Asp Glu Val Gln Asn Gln Leu Gly
 35 40 45
 Asp Leu Gly Lys Pro Leu Ser Ser Met Asn Leu Asp Glu Leu Leu Lys
 50 55 60
 Asn Val Trp Thr Ala Glu Ala Gly Gln Ser Met Phe Met Asp Val Glu
 65 70 75 80
 Gly Thr Ala Val Ala Asn Gln Asn Ala
 85

<210> 1917
 <211> 159
 <212> PRT
 <213> Eucalyptus grandis

<400> 1917
 Leu Glu Ile Gly Arg Ala Gln Leu Asp Arg Ser Phe Lys Gln Leu Lys
 1 5 10 15
 Lys Thr Val Tyr His Ser Thr Ser Val Leu Ser Thr Leu Ser Ser Ser
 20 25 30
 Trp Ser Ser Lys Pro Pro Leu Ala Val Lys Tyr Gln Leu Asn Pro Gly
 35 40 45
 Ser Leu Thr Glu Ser Asp Asp Ser Lys Ser Leu Cys Ser Thr Leu Asp
 50 55 60
 Lys Leu Leu Ala Trp Glu Lys Lys Leu Tyr Glu Glu Val Lys Ala Arg
 65 70 75 80
 Glu Gly Glu Lys Ile Glu His Glu Lys Lys Leu Ser Val Leu Gln Ser
 85 90 95
 Gln Glu Gly Lys Gly Glu Asp Glu Thr Lys Val Asp Lys Thr Lys Ala
 100 105 110
 Ser Leu Asn Lys Leu Gln Ala Leu Ile Ala Val Thr Ser Glu Ala Val
 115 120 125

Ser Thr Thr Ser Asn Ala Ile Ile Gly Leu Arg Asp Ser Arg Leu Val
 130 135 140
 Pro Gln Leu Val Glu Leu Cys His Gly Phe Met Tyr Met Trp Arg
 145 150 155

<210> 1918
 <211> 349
 <212> PRT
 <213> Eucalyptus grandis

<400> 1918
 Met Glu Trp Asn Ala Lys Pro Pro Leu Gln Trp Glu Trp Glu Asn Leu
 1 5 10 15
 Met Met Phe Gly Ser Lys Ala Thr Glu Thr Ser Lys Pro Leu Arg Ala
 20 25 30
 Thr Asp Trp Gly Ile Glu Ala Glu Glu Leu Ile Asp Pro Gly Ser Leu
 35 40 45
 Phe Leu Tyr Glu Asn Gly Gly Gly Ser Ser Ser Cys Thr Ser Ile Asp
 50 55 60
 Pro Gly Tyr Thr Ser Val Ser Lys Ser Ser Lys Ser Ala Ser Val Asn
 65 70 75 80
 Ser Ser Ser Thr Asp Glu Leu Lys Ile Ser Lys Phe Ser Val Glu Ala
 85 90 95
 His Glu Gly Phe Ser Leu Gln Ser Ser Lys Lys Glu Leu Ala Val Asn
 100 105 110
 Asp Phe Thr Gly Met Ser Pro Ala Leu Glu Pro Ser Val Cys Ser Gly
 115 120 125
 Glu Pro Leu Leu Ser Leu Lys Leu Gly Lys Arg Ile Tyr Phe Glu Asn
 130 135 140
 Thr Ile Asp Lys Asp His Val Lys Thr Gln Asp Leu Pro Ser Val Met
 145 150 155 160
 Lys Ser Pro Asp Thr Pro Ala Lys Arg Asn Lys Ser Asn Cys Gln Gly
 165 170 175
 Thr Ser Ala Pro Arg Cys Gln Val Glu Gly Cys Asn Leu Asp Leu Ser
 180 185 190
 Ser Ala Lys Asp Tyr His Arg Lys His Arg Val Cys Glu Ser His Ser
 195 200 205
 Lys Cys Pro Lys Val Ile Val Ser Gly Ile Glu Arg Arg Phe Cys Gln
 210 215 220
 Gln Cys Ser Arg Phe His Gly Leu Ser Glu Phe Asp Glu Lys Lys Arg
 225 230 235 240
 Ser Cys Arg Lys Arg Leu Ser Asp His Asn Ala Arg Arg Arg Lys Pro
 245 250 255
 Pro Pro Asp Val Thr Gln Leu Asn Pro Ala Arg Leu Ser Ala Leu Phe
 260 265 270
 Tyr Gly Gly Met Gln Gln Leu Asn Pro Val Leu Ser Arg Ala Pro Ala
 275 280 285
 Ile His Thr Arg Ser Thr Ala Ser Phe Lys Trp Ala Asp Thr Gln Asp
 290 295 300
 Thr Lys Leu Ile Glu Lys Gly Pro Lys Leu Pro Ile Gly Gly Gly Val
 305 310 315 320
 Gly Glu Cys Ile Thr Ile Pro Ser Asn Gly Ile Pro Asp Thr Leu Lys
 325 330 335
 Ser Thr Gly Leu Gly Lys Ser Tyr Asn Glu Leu Leu Ser
 340 345

<210> 1919

<211> 122
 <212> PRT
 <213> Eucalyptus grandis

<400> 1919
 Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp Ser Glu Val Glu Ala Ala
 1 5 10 15
 Arg Ala Tyr Asp Lys Ala Ala Ile Lys Cys Asn Gly Arg Glu Ala Val
 20 25 30
 Thr Asn Phe Glu Pro Ser Thr Tyr Asp Gly Glu Met Ile Ala Lys Ala
 35 40 45
 Ser Asn Glu Asn Ser Ile Tyr Gly Asp His Gly Leu Asp Leu Asn Leu
 50 55 60
 Gly Ile Ser Ala Ser Ser Arg Gly Met Val Glu Thr Leu Glu Pro Ser
 65 70 75 80
 Asp Asp Met Arg Gln Gly Ser Ser Leu Arg Val Gly Asn Ser Ala Ala
 85 90 95
 Ser Trp Gly Asp Pro Ser Val Glu Gly Leu Ser Met Thr Ser Gly Gln
 100 105 110
 Pro Leu Leu Asp Gly Cys Leu Ser Tyr Arg
 115 120

<210> 1920
 <211> 155
 <212> PRT
 <213> Pinus radiata

<400> 1920
 Leu Ile His Gly Gly Gly Gly Asp Asp Tyr Val Gly Leu Cys Glu Gly
 1 5 10 15
 Gly Phe Asp Thr Ala His Ala Ala Ala Arg Ala Tyr Asp Arg Ala Ala
 20 25 30
 Ile Lys Phe Arg Gly Val Glu Ala Asp Ile Asn Phe Thr Leu Thr Asp
 35 40 45
 Tyr Gln Glu Asp Leu Asp Gln Thr Ser Lys Leu Ser Lys Glu Glu Phe
 50 55 60
 Val His Ile Leu Arg Arg Gln Ser Thr Gly Phe Ser Arg Gly Ser Ser
 65 70 75 80
 Lys Tyr Arg Gly Val Thr Leu His Lys Cys Gly Arg Trp Glu Ala Arg
 85 90 95
 Met Gly Gln Phe Leu Gly Lys Lys Tyr Ile Tyr Leu Gly Leu Phe Asp
 100 105 110
 Ser Glu Glu Glu Ala Ala Arg Ala Tyr Asp Lys Ala Ala Ile Arg Cys
 115 120 125
 Asn Gly Lys Glu Ala Val Thr Asn Phe Asp Pro Ser Leu Tyr Glu Lys
 130 135 140
 Glu Ile Leu Glu Glu Arg Arg Glu Ser Gln Thr
 145 150 155

<210> 1921
 <211> 79
 <212> PRT
 <213> Pinus radiata

<400> 1921
 Leu Ile Gly Met Pro Asp Thr Asn Tyr Gly Ser Glu Gln Thr Asn Ala
 1 5 10 15

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Lys | Lys | Gln | Lys | Arg | Ile | Arg | Ser | Lys | Asp | Ser | Gly | Glu | Asp | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Asp | Arg | Gln | Arg | Glu | His | Pro | Phe | Ile | Val | Thr | Glu | Pro | Gly | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Arg | Gly | Lys | Lys | Asn | Gly | Leu | Asp | Tyr | Leu | Phe | Asp | Leu | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Gln | Cys | Gly | Lys | Phe | Leu | Leu | Asp | Val | Gln | His | Ile | Ala | Lys | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 1922
 <211> 164
 <212> PRT
 <213> Pinus radiata

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 1922 | | | | | | | | | | | | | | | |
| His | Gly | Asn | Arg | Phe | Cys | Arg | Thr | Gly | Ile | Ser | Ser | Cys | Ala | Gly | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Ile | Pro | His | Cys | Gln | Ala | Glu | Gly | Cys | Lys | Ala | Asn | Leu | Ser | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Lys | His | Tyr | His | Arg | Arg | His | Lys | Val | Cys | Glu | Leu | His | Ser | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Thr | Val | Ile | Val | Gly | Gly | Phe | Ile | Gln | Arg | Phe | Cys | Gln | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Ser | Arg | Phe | His | Pro | Arg | Ser | Glu | Phe | Asp | Glu | Gly | Lys | Arg | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Cys | Arg | Lys | Arg | Leu | Ala | Asp | His | Asn | Arg | Arg | Arg | Arg | Lys | Pro | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Ser | Thr | Cys | Val | Thr | Ser | Gln | Ser | Gln | Ala | Gly | Thr | Thr | Gly | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Glu | Asn | Asp | Asn | Gln | Thr | Thr | Lys | Gly | Ser | Ser | Gly | His | Ile | Thr | Thr |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Ala | Val | Gln | Asn | Thr | Pro | Asn | Ile | Ser | Arg | Ser | Thr | Ser | Ser | Thr | Ser |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Pro | Ser | Leu | Ile | Thr | Ser | Val | Pro | Met | Met | Met | Phe | Pro | Asn | Asn | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Gly | His | Ser | | | | | | | | | | | | |

<210> 1923
 <211> 125
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 1923 | | | | | | | | | | | | | | | |
| Asn | Thr | Thr | Phe | Ile | Thr | Pro | Asn | Ser | Lys | Arg | Ile | Ile | Ser | His | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Ser | Ser | Val | Asp | Arg | Pro | Ala | Glu | Ser | Ala | Ala | Leu | Ala | Lys | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Arg | Arg | Ala | His | Ile | Gln | Asn | Ile | Ala | Gly | Asp | Cys | Asn | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Arg | Leu | His | Ile | Gln | Ser | Gly | Ile | Thr | Tyr | Ser | Gln | Gln | Gln | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Pro | Phe | Ser | Thr | Leu | Ala | Gln | Asn | Phe | Arg | Thr | Ser | Asn | Ser | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Gln | Gln | Ser | Glu | Ser | Asn | Gln | Lys | Glu | Ala | Thr | Asp | Asp | Ala | His |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Thr | Asn | Val | Gln | Gly | Thr | Phe | Leu | Lys | Lys | Asp | Asp | Pro | Lys | Val |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 100 | | | | | 105 | | | 110 |
| Thr | Ala | Leu | Ile | Gln | Gln | Ala | Glu | Leu | Leu | Ser |
| | | 115 | | | | | 120 | | | 125 |

<210> 1924
 <211> 50
 <212> PRT
 <213> Eucalyptus grandis

<400> 1924
 Ala Ala His Gly Thr Asn Val Gln Gly Thr Phe Leu Lys Lys Asp Asp
 1 5 10 15
 Pro Lys Val Thr Ala Leu Ile Gln Gln Ala Glu Leu Leu Ser Ser Leu
 20 25 30
 Ala Val Lys Val Asn Ala Asp Asn Met Asp Gln Ser Leu Glu Asn Ala
 35 40 45
 Trp Lys
 50

<210> 1925
 <211> 257
 <212> PRT
 <213> Pinus radiata

<400> 1925
 Ala Val Ser Tyr Leu Arg Ser Gly Ile Glu Glu Arg Glu Ser Glu Arg
 1 5 10 15
 Leu Thr Asn Lys Met Asn Met Lys Ile Arg Thr Ser Asp Thr Ser Thr
 20 25 30
 Pro Asp Asp Gln Gln Gln His Ser Gly Ala Val Lys Val Ala Ile Pro
 35 40 45
 Ala Val Ser Gly Asp Ser Gly Thr Ile Gly Leu Lys Leu Gly Lys Arg
 50 55 60
 Thr Tyr Phe Glu Ala Val Lys Ala Ile Pro Thr Ala Ile Pro Ser Pro
 65 70 75 80
 Ser Cys Val Pro Ala Ala Lys Lys Gln Gln Ser Ala Leu Gln Gly Thr
 85 90 95
 His Met Val Pro Arg Cys Gln Val Glu Gly Cys Glu Met Glu Leu Thr
 100 105 110
 Ala Ala Lys Asp Tyr His Arg Arg His Lys Val Cys Glu Leu His Ser
 115 120 125
 Lys Phe Pro Lys Val Ile Val Asn Gly Ile Glu Gln Arg Phe Cys Gln
 130 135 140
 Gln Cys Ser Arg Phe His Thr Leu Ser Glu Phe Asp Glu Gly Lys Arg
 145 150 155 160
 Ser Cys Arg Arg Arg Leu Ala Gly His Asn Gln Arg Arg Arg Lys Pro
 165 170 175
 Gln Leu Asn Ser Thr Ala Met Lys Ala Ala Arg Phe Ala Ser Thr Phe
 180 185 190
 Tyr Asp Asp Gly Arg Leu Ser Ser Ile Leu Met Ala Arg Ser Pro Phe
 195 200 205
 Met His Pro Arg Ile Ala Ser Asn Leu Glu Glu Asn Ser Leu Asp Phe
 210 215 220
 Lys Leu Gly Gly Tyr Gly Lys Gly Ala Trp Pro Arg Ile Lys Ala Glu
 225 230 235 240
 Asp Val Ser Ser Tyr Asp Gly Gln Leu Ser Thr Lys Tyr Pro Leu Pro
 245 250 255

Ser

<210> 1926
<211> 230
<212> PRT
<213> Eucalyptus grandis

<400> 1926
Met Asp Val Gly Ser Gly Ser Trp Thr Thr Glu Ser Gly Ser Ser Ser
1 5 10 15
Pro Pro Pro Leu Glu Ser Leu Asn Gly Leu Lys Phe Gly Gln Lys Ile
20 25 30
Tyr Phe Gln Asn Asn Asn Ser Ser Asn Asn Ala Ala Ala Pro Lys Asn
35 40 45
Gly Ser Gly Ser Gly Ser Gly Ser Ser Ser Ala Ala Ala Pro Ala Pro
50 55 60
Gly Ser Gly Thr Pro Pro Lys Lys Val Arg Ala Ser Ala Gly Gly Gly
65 70 75 80
Gly Cys Gly Ala Ile Gln Gly Gly Gln Pro Pro Arg Cys Gln Val Glu
85 90 95
Gly Cys Arg Val Asp Leu Ser Asp Ala Lys Ala Tyr Tyr Ser Arg His
100 105 110
Lys Val Cys Gly Met His Ser Lys Ser Ala Thr Val Ile Val Ala Gly
115 120 125
Ile Glu Gln Arg Phe Cys Gln Gln Cys Ser Arg Phe His Gln Leu Thr
130 135 140
Glu Phe Asp Gln Gly Lys Arg Ser Cys Arg Arg Leu Ala Gly His
145 150 155 160
Asn Glu Arg Arg Arg Lys Pro Pro Pro Gly Ser Leu Leu Ser Ser Arg
165 170 175
Tyr Gly Arg Leu Gln Ser Ser Ile Phe Glu Asn Thr Thr Arg Val Gly
180 185 190
Ser Phe Leu Met Asp Phe Thr Ala Tyr Pro Lys His Ala Trp Ser Ala
195 200 205
Pro Arg Phe Ser Glu Arg Thr Thr Pro Gly Asp Leu Val Pro Gly Pro
210 215 220
Gly Lys Val Tyr Pro His
225 230

<210> 1927
<211> 35
<212> PRT
<213> Eucalyptus grandis

<400> 1927
Gly Lys Arg Ser Val Glu Trp Asp Ser Asn Asp Trp Lys Trp Asp Gly
1 5 10 15
Asp Leu Phe Val Ala Arg Pro Leu Asn Pro Val Pro Ser Asp Phe Pro
20 25 30
Gly Arg Gln
35

<210> 1928
<211> 112
<212> PRT
<213> Pinus radiata

<400> 1928

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Thr | Cys | His | Gly | Asn | Thr | Phe | Cys | Arg | Thr | Glu | Ile | Ser | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Thr | Gly | Ser | Gln | Ile | Pro | Gln | Cys | Gln | Ser | Glu | Gly | Cys | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Leu | Ser | Ser | Ala | Lys | His | Tyr | His | Arg | Arg | His | Lys | Val | Cys | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Phe | His | Ser | Lys | Ala | Pro | Thr | Val | Val | Val | Gly | Gly | Gln | Ile | Gln | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Cys | Gln | Gln | Cys | Ser | Arg | Phe | His | Gln | Thr | Ser | Glu | Phe | Asp | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Lys | Arg | Ser | Cys | Arg | Lys | Arg | Leu | Ala | Asp | His | Asn | Arg | Arg | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Lys | Pro | Lys | Pro | Ser | Gln | Cys | Thr | Thr | Ser | Gln | Cys | Gln | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 1929
 <211> 117
 <212> PRT
 <213> Pinus radiata

<400> 1929

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Glu | Val | Gln | Val | Lys | Val | Asp | Ile | Gln | Ser | Thr | Asn | Val | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ala | Asp | Glu | Pro | Arg | Pro | Ala | Lys | Arg | Gln | Gly | Phe | Glu | Leu | Ala | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Pro | Glu | Asn | Val | Ala | Ser | Lys | Ser | Thr | Ala | Leu | Ser | Ser | Pro | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Pro | Lys | Ala | Ala | Ser | Ser | Ser | Ser | Ser | Ser | Ser | Pro | Arg | Ala | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Pro | Ala | Cys | Gln | Val | Glu | Lys | Cys | Ala | Ala | Asp | Leu | Ala | Asp | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Glu | Tyr | Tyr | Arg | Arg | His | Arg | Val | Cys | Glu | Gln | His | Ser | Lys | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Ile | Val | Leu | Val | Leu | Gly | Leu | Gln | Gln | Arg | Phe | Cys | Gln | Gln | Cys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Arg | Phe | His | Val | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 1930
 <211> 143
 <212> PRT
 <213> Pinus radiata

<400> 1930

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Ser | Thr | Ser | Ser | Tyr | Ser | Ser | Pro | Ser | Pro | Asp | Thr | Pro | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Ser | Ala | Ala | Val | Arg | Pro | Thr | Ser | Thr | Arg | Asp | Asp | Ser | Ser | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Glu | Pro | Pro | Arg | Lys | Arg | Ala | Arg | Ala | Asp | Leu | Asn | Ala | Glu | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Arg | Glu | Ala | Arg | Ala | His | Arg | Asn | Arg | Ile | Ala | Ala | Gln | Asn | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Asp | Lys | Arg | Lys | Ala | Gln | Phe | Thr | Tyr | Met | Glu | Gln | Arg | Val | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gln | Leu | Glu | Glu | Glu | Asn | Gln | Arg | Leu | Arg | Ala | Gly | Met | Gly | Leu | Ser |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Gln | Phe | Thr | Pro | Ala | Asp | Asn | Asp | Lys | Phe | Val | Ser | Leu | Glu | Arg | Glu | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Ser | Val | Gln | Ala | Arg | Glu | Asn | Arg | Glu | Leu | Lys | Glu | Arg | Ile | Lys | Ser | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Leu | Glu | Ser | Gly | Trp | Ser | Ala | Val | Ile | Lys | Ala | Leu | Gln | Ala | Ser | | | | | |
| | 130 | | | | | | 135 | | | | | 140 | | | | | | | |

<210> 1931
 <211> 199
 <212> DNA
 <213> Pinus radiata

<400> 1931
 aacaactgaa caataaaaaat cacaagcact gaatctaacc atctctccac aaagcagaat 60
 catttttttag cagtgcagaa ttaaatacaa acacaattgt tcggctgtaa agcaaagatg 120
 aagcatcacg tagtgcacaa ttgctgtagc aagaaagctg taaagagagg cttctggctg 180
 cccgaggaag atttgaagc 199

<210> 1932
 <211> 380
 <212> DNA
 <213> Eucalyptus grandis

<400> 1932
 gggatctcta ggaacttcgt gaaaacgcgg acgccgacac aggtggcgag ccacgcccag 60
 aagtacttcc tccggcgagc caaccagaac cggcgacgcc ggcggtccag cctcttcgac 120
 ataaccaccg actcgtactt tggggtttca agctctacaa tggaggaggg tcatcatcaa 180
 ggcgaccaag taccagctt cctcttttcc ttgcctccgg cggtttcacc gggaaccggc 240
 gagaaactgc tggaaagtct gcgactaaga aaagaggggt gccagtcgaa acccaccccg 300
 tcgaagccca tccgcccggg cccgatcctt cccatccctc cgtcctcgaa aatggcgggt 360
 ctcgacctca acaaggcgac 380

<210> 1933
 <211> 630
 <212> DNA
 <213> Eucalyptus grandis

<400> 1933
 ggaccggcga gtttctccgg ggaagaccgg cggagcggcg gcggcgggcg cggcgggcgg 60
 gggaaaagct cccgcctttc gtcgtttcgc ggtccgtgga ataggcgaca agtcggattg 120
 cgttgcgtgt cgcgcctcgc ttcgtatata agggcggtt gctgctgctg ctactggtct 180
 gaggagtcaa ccgagctcga gcgttacggc cttcccgaag gttccgcccg ctagggtttt 240
 tttatatttc cctctgtttt tcctccgttc ggccacggtc gttgcttcgc tttaaaagga 300
 ttggcgcgat tgagctgggc ggagcttgag ggttcggggc gtggcgggcg aagtggagtg 360
 gagcgggggg tgggtggtgt cgacatggtg atcgggttct gacgatgccg agctttgttc 420
 cagcgacacc ggctccaat tccattggtt cggagggaaa cgttggtccag tctaatacaa 480
 atacagattt tgggtcggtt gagcattcac ttggattccg catagaggat gccatcaacc 540
 ttagcagaac agatcctgtc tttaatcaga taaaaccaa cggtcgagct cttggaactg 600
 acattcaagc tcgtgctttt aataagtctg 630

<210> 1934
 <211> 524
 <212> DNA
 <213> Eucalyptus grandis

<400> 1934

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| tgtagcaag | catgtatgta | ctaactagta | gtttttgtaa | agcatgatgt | cgaaaccttg | 60 |
| agtagcaagg | tgaagatggc | tgaagagacg | gttaaaagag | taaccggact | gaacccaatg | 120 |
| ctgcatgtga | tgtccgacat | gtcttctgtg | gggtgtgccac | catttgatgg | tagtccttct | 180 |
| gatacatcag | cggatgctgc | agttcctgtg | cgagatgacc | caaagcacca | attctatcaa | 240 |
| accaattcta | gtaaccccg | atcatctgct | gacgatat | | | 278 |

<210> 1939

<211> 342

<212> DNA

<213> *Eucalyptus grandis*

<400> 1939

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| acaggttgct | caattaagag | ttgagaattc | tactttactg | aaacgtctct | cggacataag | 60 |
| ccagaagtac | aatgtagcag | ctgttgacaa | cagagttttg | gaagctgatg | tcgaaacctt | 120 |
| gagagcagag | gtgaagatgg | ctgaagagac | gggttaaaaga | gtaaccggac | tgaacccaat | 180 |
| gctgcatgtg | atgtccgaca | tgtcttctgt | gggtgtgcca | ccatttgatg | gtagtccttc | 240 |
| tgatacatca | gcggatgctg | cagttcctgt | gcgagatgac | ccaaagcacc | aattctatca | 300 |
| aaccaattct | atgtaacccc | gcatcatctg | ctgacgatat | ga | | 342 |

<210> 1940

<211> 376

<212> DNA

<213> *Eucalyptus grandis*

<400> 1940

| | | | | | | |
|-------------|------------|------------|-------------|------------|-------------|-----|
| gctgttttca | catctttttg | aacacgcccc | taaagatccg | ccctcagagc | cgctctctgtc | 60 |
| cgggtggctgc | tgacattcca | cctagaaatt | cccagaccaag | ttcccccttt | ctaagccaga | 120 |
| ttgggaaagg | ttcatatttg | tccaacagta | gtagtggatt | taaaggggga | ggcactcttg | 180 |
| ctgctacaag | cagaagctga | ggaaaggcct | ctggtcacct | gaagaagacg | agaagctcct | 240 |
| caggtagatc | acgcagtatg | gccatgggtg | ctggagctct | gttcttaagc | ttgcagggtct | 300 |
| gcagaggtgt | gggaagagct | gcagattgag | gtggattaac | tacctgaggc | ctgatttgaa | 360 |
| gaggggcaca | ttctct | | | | | 376 |

<210> 1941

<211> 169

<212> DNA

<213> *Eucalyptus grandis*

<400> 1941

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aggaattgca | gcacctggaa | cagcaattga | gtggggcctt | atcatctgtc | aaggagaaga | 60 |
| aggagcaatg | gcttctggag | cagctggagc | gttcaagatt | acaggagcag | agggctatgc | 120 |
| tggagaatga | aactctgcgc | agacaggctg | acgagcttag | aggtttcct | | 169 |

<210> 1942

<211> 188

<212> DNA

<213> *Eucalyptus grandis*

<400> 1942

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| cgagatctcc | gtcctctgcg | acgccgacgt | cgccctcacc | gtcttctcca | ccaagggcaa | 60 |
| gctcttcgag | tacgccaccg | actgttgcac | ggagaggatc | ctcgagcggt | atgagagata | 120 |
| ttcatatgca | gagagccagg | ttctcacaaa | caatgccgaa | accaatggga | actggacttt | 180 |
| ggaacatg | | | | | | 188 |

<210> 1943

<211> 321

<212> DNA

<213> Eucalyptus grandis

<400> 1943

| | | | | | | |
|-------------|------------|-------------|------------|-------------|------------|-----|
| ctcttttctc | ctcaatcgga | aggggttcttc | aacccaatgg | acggcaacct | ctcattgcaa | 60 |
| atcggtataca | atccgacatg | tctggacgag | atgaatgctt | cggttttcgag | ccaaaatgtt | 120 |
| gctggattca | ttccgggatg | gatgctttga | acttactaca | tcgacttgga | gtgtgaatcg | 180 |
| agctggtgaa | atttgtgcgt | gtgtcccttg | taaaattgcg | atccgcaaga | caataagtac | 240 |
| ataatatttt | ggagctgtga | tgacataaaa | agaggaaggc | caccctttcc | tctctcatga | 300 |
| tcagaacttt | tgataatgtc | t | | | | 321 |

<210> 1944

<211> 905

<212> DNA

<213> Eucalyptus grandis

<400> 1944

| | | | | | | |
|------------|-------------|------------|-------------|------------|-------------|-----|
| ctagtggatc | ccaagtctcc | atcatcatga | tctccagcac | cggcaagctc | cacgagtaca | 60 |
| tcagcccctc | cacctcaacg | aagaagatgt | acgatcagta | tcagcaggcg | ctcgagggtg | 120 |
| atctctggag | ctctcactat | gagaagatgc | aagagaacct | gaggaagctg | aaggagggtga | 180 |
| acaagaagct | tcagctggag | gtcaggagga | ggttcgggga | aggactgaat | ggtatgagct | 240 |
| tatcggaatt | gtgcgggtctt | gagcaagata | tggaacaacgc | cgttagcctg | atccgtgaac | 300 |
| ggaagtacaa | gacgctcggc | aatcaaactc | acaccgccag | gaagaagaaa | aagaatgctg | 360 |
| aggaaataaa | caaaagtctc | ctgcaagact | ggaccaatct | gatcaagcat | ctgagggagg | 420 |
| acgacccgca | cttcggaatg | gtcgacaacg | gcagggatta | cgaggctgtg | atcggggtata | 480 |
| cagacgccgc | cgccgccgct | cgcttgtaca | ccctgcgcct | gcaaccggac | cagcccaatc | 540 |
| ttactagcgg | aggaggatcg | gagatcacga | cctacccttt | gctcgagtga | gacgaaggcg | 600 |
| tcggaaaccc | ttccgacgtc | ctcatattgt | ctattcattc | tgtctaaggg | ccgattccat | 660 |
| ctggaatect | gacttcattg | gtatgtcgaa | gtttaggact | ttgttatgtc | atcctattca | 720 |
| gcagctaagt | ttgttcttat | cagaagctgt | tcctattatg | gaccgagggc | gatttccctc | 780 |
| agggcatcat | gtgttttaag | acaagtctat | atataagact | actttaaaac | aatcgaatga | 840 |
| gttggtgcaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaact | 900 |
| tcaag | | | | | | 905 |

<210> 1945

<211> 337

<212> DNA

<213> Eucalyptus grandis

<400> 1945

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcggcaagga | gcaactaaat | gtaacactct | gattactagg | gacctctcat | tgtcttttga | 60 |
| tggtatttaa | atcaccagga | ggaatcacgt | ggctgaaaca | tttacttgtg | aagaactttt | 120 |
| acttagggga | gcatctaaaa | tgaggaatg | ggctcatcaa | gaaggcctac | gagctctccg | 180 |
| tcctctgcga | catcgacatc | gccctcatca | tggtctcccc | ctccgaccgc | gtgagccact | 240 |
| tttcgggaaa | aagaaggatc | gaggatgtct | tgaccggttt | cattaacctc | accgaccaag | 300 |
| aacggacact | cctagatgtc | caggatcggc | gcacacg | | | 337 |

<210> 1946

<211> 301

<212> DNA

<213> Eucalyptus grandis

<400> 1946

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| caaaccttcc | cagggtttcc | atttccattt | ccttcataga | atgctccggt | cctttcttat | 60 |
| cccttttttg | gtactctctg | ttctcatggt | cctttcataa | agttttctca | tctcttaacc | 120 |
| aagactggta | agagagagag | agatagagag | tttattagtg | ggtgaggggtg | ttaaaaaatg | 180 |
| ggaagaggga | gggttcagct | gaagaggata | gagaacaaaa | ttaacaggca | agtgaccttt | 240 |
| tccaagagaa | ggaatgggct | cctcaagaag | gcttatgagc | tctcgtcctc | ctgtgatgct | 300 |

<210> 1947
 <211> 354
 <212> DNA
 <213> Eucalyptus grandis

<400> 1947

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gccaagtagc | accccgtttg | ccccacatta | tctgtgatat | gtaaacgtgg | tgggcctctg | 60 |
| ttagctacaa | tatgattggc | atcatttaag | cttttgcgta | atcatcagtg | ttctcaattt | 120 |
| gcaaaatacc | attaacggat | cttgcagcat | ggaaagcatt | ttagagaggt | acgagagata | 180 |
| cacttatgcg | gagcgacagc | aagtggccac | tgattccctt | caagtgcagg | gaagttggtc | 240 |
| gcttgaatat | cccaagctcg | tggctaggat | cgaagtcttg | cagaggaaca | taagaaactt | 300 |
| gagcggagaa | gagcttgatc | ccttgagtct | gagagagctg | cagtatttgg | agca | 354 |

<210> 1948
 <211> 456
 <212> DNA
 <213> Eucalyptus grandis

<400> 1948

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| gtttcctctt | caggagaaag | caaggagctg | tagaggaatt | gaaaatgggtg | caagaagtcc | 60 |
| gaaaggggtc | atggacagaa | caagaagatt | tccaactggt | gtgctttgtt | ggactttttg | 120 |
| gagatcgccg | atgggatttt | atagcgaagg | tatcaggttt | gaagggtggcg | ggagaaaata | 180 |
| ataggtatgt | tcgtttttaa | gcctgggggt | tttttggaag | gagctacttc | taaccgcccc | 240 |
| gctttattcc | aggattgaat | agaacaggaa | aaagctgcag | actacgctgg | gttaactacc | 300 |
| tgcacccctg | cctaaaacga | gggaagatga | cacctcaaga | agagagactg | gtgctcgaac | 360 |
| ttcattccaa | atggggaaat | agatgggtcaa | gaattgctcg | caagctacca | gggcgaacgg | 420 |
| acaatgagat | aaagaactat | tggaggactc | atatga | | | 456 |

<210> 1949
 <211> 382
 <212> DNA
 <213> Eucalyptus grandis

<400> 1949

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|------------|-----|
| atTTTTTcaac | TTTTTTTTCC | caacccgaat | caaatcccat | tccctctctc | cctccctccc | 60 |
| tttttttccc | ccaatctttt | gttgcgtttt | caagcaccca | cgccccccaa | tctccaacgc | 120 |
| catcaatcaa | gctcaagcac | catcacctca | agaagaaaga | aggaaagaaa | gagagaagga | 180 |
| ccggagaccc | gacagagggg | cgcgcgcgca | cgagacatgg | gacgatcccc | ttgctgcgag | 240 |
| aaggcgacac | ccaacaaggg | cgcggtggacc | aaggaagagg | accagcgccct | catcgactac | 300 |
| atccgcctcc | acggcggaagg | ttgctggcgc | tccctcccca | aatctgccgg | gcttctcagg | 360 |
| tgcggaaga | gctgcaggct | ca | | | | 382 |

<210> 1950
 <211> 371
 <212> DNA
 <213> Eucalyptus grandis

<400> 1950

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gttgagcagg | tacagtttct | tgaaaagagt | tttgaagtag | agaacaagct | cgagccagat | 60 |
| cgaaaaatcc | agttggcaaa | agacctcgga | ttgcagccac | gacaggtagc | gatatggttt | 120 |
| cagaatcgtc | gtgcacgggtg | gaagacgaag | cagctagaga | aggattatga | aactttgcaa | 180 |
| gcttctttta | acaccttgaa | gtcagactac | gacactctca | tcaaggagcg | gaatgatctg | 240 |
| aaagccgagg | ttcttaacct | cacggacaag | ctgcttcaca | agggaaatga | gaaggagagt | 300 |
| tccgagtcgt | ccagcaaata | atctcaaggg | ctattccaga | acccatttgc | tgattctggt | 360 |
| tctgaggacg | a | | | | | 371 |

<210> 1951
 <211> 356
 <212> DNA
 <213> Eucalyptus grandis

<400> 1951
 aaaaagcata agctccctga cccataatcc ctagtatcga tggccagggt tcccagggtt 60
 gacaagagca acagcaagaa gacagtgaag aagggcgctt ggagtgcgga agaagaccag 120
 aaactggtgg cttatatcaa gagatatggc atttggaact ggactcacat ggccgaaccc 180
 gccggttttag cgagaacagg aaagagttgc cggcttcgat ggatgaacta tctgaggccc 240
 aacatcaagc atggaaacat cacccaagaa gaggaagaaa tcattattaa cttgcaccga 300
 gttcttggtg accggttgggc cagcatagcg agcagacttt caggaaggac ggacaa 356

<210> 1952
 <211> 475
 <212> DNA
 <213> Eucalyptus grandis

<400> 1952
 ctccccctctc ctggctctcg ctctctctct ctctctcagt tctttctcgg acgggtgtct 60
 gtgctgtggct tttgatcggt catcacctga ggccgcgtct gcaagcaagt gaagaaggag 120
 gacaaggaat atggcgagag agaagatcaa gatcaagaag atagacaatg tgacggcgag 180
 gcaggtgacg ttttctaaga ggagacgagg gcttttcaag aaagccggag agctgtcggg 240
 cctgtgcgat gccgaggtcg ctgtcgtcat tttctcggct accggcaagc tctttgagta 300
 ctccagctcc agcatgaagg acactcttga gaggtacacc ctccaccaca ataactttga 360
 gaatatggac caaccttctc tcgagctgca gctggagcat agcaataaca tgaggttaag 420
 caaggaagtg gcagaaaaga gccatcgact caggcagttg aggggtgagg atctt 475

<210> 1953
 <211> 541
 <212> DNA
 <213> Eucalyptus grandis

<400> 1953
 atcgcccccg ttctctccct ctctctccct ctcccccta acgtttcttg cctcttctt 60
 tgtctggaca aaaagatggg aagaaagtgc tctcgctgtg ggaacatagg ccataactca 120
 aggacttgca caactttcat gggggcagca agtgcttggt ggctcaagct cttcgggtgtt 180
 caacttgacc tatcttcttc ttctctccct tcatcatcag catctagtgg ttctgctcat 240
 ccttattcac ttgtcataaa gaagagcctc agcatggatc gtctgtcttc ttctcggcc 300
 tcctcctcgt ctccatcttc atccctctcc tcgccaagag ttcttgctga tgaacactgc 360
 aataagacct ccctcggata tctctctgat ggctcggcg ctagatccca ggagaaaagg 420
 aaaggagttc cgtggacgga agaagagcat cggacattct taatggggct agagaagatg 480
 gggaaaggcg attggagagg catctccagg aactatgtga ccacgagaac cccaacccaa 540
 g 541

<210> 1954
 <211> 437
 <212> DNA
 <213> Eucalyptus grandis

<400> 1954
 cgcggttggc gtcagataga agagcatgta ggaacaaaa ctgcagttca gatacgaagt 60
 catgccccaa agttcttctc taagggttgc cgcggggtaa gtggcagcag cgagggtgtg 120
 attaaaccaa ttgaaatacc tcctccacgg ccaaagcgga agccaatgca tccatatcca 180
 cgcaaactctg tcgattcaaa ggaggtgaaa ctgtcctatc aacaagagag gtctccatct 240
 ccaatctctt cggtagcaga tgaaaacact ggatctccta cttcagtttt gtctgctcat 300

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| ggttcagaca | tgctgggatac | agcatctttg | catcaacaaa | acagatgctc | ttcaccgact | 360 |
| tcatgtacca | ctgatgtacc | ctctattggg | ctagctgtaa | ttgagaagca | acctgaaata | 420 |
| ttcaaagaag | aagataa | | | | | 437 |

<210> 1955
 <211> 470
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| <400> 1955 | | | | | | |
| attcggtcac | gagttcactt | cgtcgcctgc | ctcgtcgtcc | tcctgtcct | cctcgcgaat | 60 |
| ctccatcggc | gagaactctg | ataaagcatc | cctcggctat | ctgtcggatg | gcctgctggg | 120 |
| tagatcccaa | gagaagaaga | aaggagttcc | atggacagag | gaggaacaca | gaaccttctt | 180 |
| ggtggggctt | gagaagcttg | ggaaggggtga | ttggagaggc | atctctagga | gctatgtgac | 240 |
| cacaagaaca | ccggcccagg | ttgcaagtca | tgctcagaaa | tatttcctcc | ggcaagtgag | 300 |
| cttcaacaag | aaaaagcggc | gctcagacct | ctttgacatg | gttgatgtca | aaaccgcggc | 360 |
| gggtgatcgt | ttaggcagtt | tgacggccaa | gccgagttag | tcagttccta | attgcaaaat | 420 |
| gggaaccttg | atgtctcatt | tgcaagttca | tgatgccaga | accactcagc | | 470 |

<210> 1956
 <211> 384
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1956 | | | | | | |
| ctgaaatttc | gtcttcaagc | catggaacaa | caggcgcaac | tacgcgatgc | cctgaatgaa | 60 |
| gcattgactg | ctgaggtgca | acgattgaag | cttgcgacag | cagagctcaa | ctcggaatct | 120 |
| catccttcaa | agtgcattgt | ttcacagctt | cctgtgagct | cccaaattgt | ccagctccat | 180 |
| cagatgcaac | agcagcagca | gtctcagcaa | caaactcaat | cacagcagca | aaatggtaac | 240 |
| acaaccacaa | agtcagagtc | gaatcaatag | gacgtgggtg | gtccaacaac | tcgggcgcct | 300 |
| ggacaaacct | catttgtctc | ggttcttcga | cacctgacg | tagttctcta | gtgcatccat | 360 |
| tcattcatta | gtttttgcat | atgc | | | | 384 |

<210> 1957
 <211> 388
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1957 | | | | | | |
| gtttcctctt | caggagaaag | caaggagctg | tagaggaatt | gaaaatgggtg | caagaagtcc | 60 |
| gaaaggggtc | atggacagaa | caagaagatt | tccaactggt | gtgctttgtt | ggactttttg | 120 |
| gagatcgccg | atgggatttt | atagcgaagg | tatcagggtt | gaagggtggc | ggagaaaata | 180 |
| ataggattga | atagaacagg | aaaaagctgc | agactacgct | gggttaacta | cctgcatcct | 240 |
| ggcctaaaac | gagggaagat | gacacctcaa | gaagagagac | tggtgctcga | acttcattcc | 300 |
| aaatggggaa | atagatggtc | gagaattgct | cgcaagctac | cagggcgcaac | ggacaatgag | 360 |
| ataaagaact | attggaggac | tcatatga | | | | 388 |

<210> 1958
 <211> 455
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 1958 | | | | | | |
| tgacgatgtt | tgtggaggag | gaaagagacc | ggaaaggcct | ttcttttgca | catatgacgg | 60 |
| ggaggaaaat | ggagacgatg | attatgatga | gtattttacac | caacctgaga | agaaaaggcg | 120 |
| attgtctatc | gagcaagttc | tgtacttgga | gaagagcttt | gagactgata | acaagcttga | 180 |
| accagataaa | aaagttcagc | ttgccaaaga | actcgggttg | caacctcgtc | aagttgctat | 240 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ttggttccaa | aatcgaagg | caagatggaa | aactaagcaa | atggagaagg | atttcgataa | 300 |
| attgcaagct | agttttaact | gtttgaagtc | tgattatgaa | agtcttctca | atgagaagga | 360 |
| gaagctcaaa | gctgaggtta | ttcatttgac | acaccagcta | gagcaaagga | gcaacggaat | 420 |
| tctgaaccat | tcgacatatc | tgaacaattg | cacac | | | 455 |

<210> 1959
 <211> 965
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1959 | | | | | | |
| aagagaaaag | atacaatccg | ccgtggaccc | aagaaggcca | aagcccgcctc | tctgcacgat | 60 |
| gatgggtagt | agtagtagta | ctacttatct | tccgtgaggt | ctctcgaatt | aggggtttct | 120 |
| tgattttcgc | caacccccca | atatttatct | tttctttctt | tccttttttt | cgcttctctc | 180 |
| gcagttcacc | tagaaaagct | acgagggcct | cgcaccagtt | ccgtacgggg | ctgcttcagt | 240 |
| gcgtagcgtg | tactatctcg | tctcaggtgg | tgtttcgctt | ttatggggat | gtccttcggc | 300 |
| gggggcgttt | cgaagattct | tgtagctccg | tagcttgctc | tgccgggattt | ggttggggcg | 360 |
| atcgtcaggt | ttcttccagt | taaagttgcg | atttttaagg | ggagcgaggg | cgtttgagct | 420 |
| ggtaaagtcc | gaagcttttt | gagttcggcc | gccagggttg | tgctctagag | ataactggag | 480 |
| gcgaaagggt | gcgttccggt | ccggtcagca | tccgctgact | caggagatgg | ttgggggttg | 540 |
| ttggtggcgg | cggtgatgat | gattcatggg | tagtaggact | agagttggcg | gtggtggaga | 600 |
| tgatggcaga | gttgtgaacg | gcatgccgag | cttcgtccct | caattaccca | cttcgaattc | 660 |
| catgggatca | gaaggaaact | ccattcgctt | ttctcgaatt | acagactttg | gaacacttga | 720 |
| gcagtctctt | ggataccgca | tagaagatgc | agttgacctc | agcagaaatc | ctgtcttcaa | 780 |
| tcagatgaaa | tcaagtgcc | aggctcttgg | ggctgatgtc | caatttggct | ctttgaataa | 840 |
| gtccctttca | tcctcagaca | gaaatctttc | tgtgaatatt | gtggggtctc | agactctatc | 900 |
| tatgcataga | gaatcacaat | caaacttagt | atcaataccc | ggtgctcatc | gtgagaactg | 960 |
| gggggg | | | | | | 965 |

<210> 1960
 <211> 599
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 1960 | | | | | | |
| gtccgggtccg | gtctcctccc | tcccttctct | cctccttctc | tctctctctc | tctctctctc | 60 |
| tctctcgccg | tccaaccgta | cggactctcg | gttttgccgc | gaaacggaac | ggagcggacc | 120 |
| cggctccctcg | ccgtcgccgg | tgcgagagaa | tgcttcccc | acgcgccgcc | acccccgacg | 180 |
| tcgcccggca | cgagagctcc | ggcgccgacg | ccggcgccgg | ggagatcatg | ctgttcgggg | 240 |
| tgccgggtgg | cgtggactcg | atgaggaagt | gcgtgagcct | gaacaacctg | tctcagtacc | 300 |
| agcaccgcga | ggacgcgaat | ccgcccacg | ccagcggcgg | gagcggcgcc | aacaaggaag | 360 |
| aggccgcca | aggctacgca | tccgcccagc | acgcgcgcga | caaccccgcc | gggtggccgcg | 420 |
| agcgcaagag | aggagtctct | tggacagagg | aggagcacag | gctgttcttg | ttgggattac | 480 |
| agaaggtggg | gaaaggagat | tggagagcga | tatccaggaa | ctttgtgaag | acccgcacgc | 540 |
| ccactcaggt | cgcgagccat | gcccagaaat | atttctctgc | ccgaagcaac | ctcaatcgc | 599 |

<210> 1961
 <211> 377
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 1961 | | | | | | |
| ggagaacgtg | gcttctgggt | cgactgagcg | gccgagaatt | agacatcagc | atagccagtc | 60 |
| tatggacggg | tcgacgagta | ttaagcccga | gatgcttatg | tcgggttcag | aggatgcac | 120 |
| tgctgcagac | gccaaagagg | ccatgtctgc | tgcaagctt | gctgagcttg | caactgattga | 180 |
| tcccaagcgt | gcaaagagga | tctgggcaaa | cagacaatcg | gctgcaagg | caaaggaaag | 240 |
| gaagatgcga | tacatagctg | agctagaacg | gaaagtacaa | actttacaaa | ctgaagcaac | 300 |

| | |
|---|-----|
| aactttgtct gcacagctga ctctgctgca gagagacaca aatgggttga ctgctgagaa | 360 |
| tagtgaattg aaactgc | 377 |

<210> 1962
 <211> 317
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | |
|---|-----|--|--|--|--|
| <400> 1962 | | | | | |
| aagtaaaatc ccctctcggc tectctttct tttatgtaca ttccaagaac agcgacagat | 60 | | | | |
| aaggccccga gatctgcaag tcttcttcac actactcgct gatggctgat tctgaacatt | 120 | | | | |
| cttcttctga tgacacttac gtggactcta gagaagagac aagtgaagaa tcaaagctag | 180 | | | | |
| atttctctga agatgaggag acgcttgtaa ttagaatgta caacctggtt ggagaaaggt | 240 | | | | |
| ggctctaat tgctggtaga atcccaggga ggacagctga agaaatcgag aagtactgga | 300 | | | | |
| attccagata ttcaaca | 317 | | | | |

<210> 1963
 <211> 471
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | |
|--|-----|--|--|--|--|
| <400> 1963 | | | | | |
| ctcctctctc ataagtcata attcacaggc gcggcacaag gcacgaaaag ataaaaaaaa | 60 | | | | |
| aaacgatggc cggtagaggag ccctattctg ccgacacgaa ctcggacact ttcgctgatg | 120 | | | | |
| aagaaacgct gattccgagt tcttccgagg ctcttgagtc cgcctgggtt cctacttcct | 180 | | | | |
| cgaccgctca tcatggttca aaatcagtggt tcaattttga ggacgtttgt ggaggaggag | 240 | | | | |
| acaccaatac tgcgccgagg ccatacctcc gacagattga tctgaaggaa gaagccgtcg | 300 | | | | |
| aagaggacta cggcgacggg aactttcagc ctcttggtta gaagcggcgg ctatcggccg | 360 | | | | |
| accaagtcca tttcctcgag aggcactttg aggtcgagaa caagctcgag cccgagagga | 420 | | | | |
| agatccagct cgccaaggac ctccggcctgc agccgaggca ggtcgcgac t | 471 | | | | |

<210> 1964
 <211> 372
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | |
|---|-----|--|--|--|--|
| <400> 1964 | | | | | |
| tgacactgaa gattcgaaga agaaagagag gcatattgtg acttggtctc aagaggagga | 60 | | | | |
| tgatatactc cgggagcaaa tcggtataca tggaactgag aactggctga ttatcgcatc | 120 | | | | |
| aaagttcaag gataaaacga cgagacaatg cagaaggaga tggtagacat atttgaattc | 180 | | | | |
| tgacttcaag aaaggggggtt ggtcaccgga ggaagatgtg cttttatgtg aggtcagaa | 240 | | | | |
| gattttcggc aacagatgga cagaaatagc aaaggtggtt tcaggcagga ctgacaatgc | 300 | | | | |
| cgtaaaaaat cggttcacia ccttgtgtta gaaaagagca aggtacgaag ccttagcgaa | 360 | | | | |
| agagaataca ct | 372 | | | | |

<210> 1965
 <211> 424
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | |
|---|-----|--|--|--|--|
| <400> 1965 | | | | | |
| atgcaatttt gagcgtcgcg agtaagccgg agcgagggga gagcgatggg caggcagccg | 60 | | | | |
| tgctgcgaca agcttggggg gaagaaaggg ccgtggacgg cggaggagga ccggaagctg | 120 | | | | |
| gtcaacttca tactcaccca cggccaatgc tgctggcggg ccgtcccaa gctcgctggg | 180 | | | | |
| ctccgcccgt gtggcaagag ctgccgcctc cgctggacca actacctccg ccccgatctc | 240 | | | | |
| aagcgtggcc tctcaatga agccgaggaa agcctgggta tcgatctcca tgccactctc | 300 | | | | |
| ggcaataggt ggtccaaaat agcagctaga ctaccgggaa gaacggacaa cgagatcaaa | 360 | | | | |

| | |
|---|-----|
| aaccactgga acacccatat caagaagaag ctcattagga tgggcattga tccagtcact | 420 |
| caca | 424 |

<210> 1966
 <211> 427
 <212> DNA
 <213> Eucalyptus grandis

| | |
|--|-----|
| <400> 1966 | |
| cccggctccc gctcgtccaa tcggcgcgctc gagaggaaga aaggtaaccc atggacggag | 60 |
| gaagagcatc gaaggttttt aattgggtctc cagaaattgg gtaaaggaga ctggcgaggg | 120 |
| atagctcgtg actttgtgac tacaaggact cctactcaag tggcaagcca tgcccagaag | 180 |
| tattatatcc ggcagagtaa tgctggccga agaaagaggc gctccagcct ttttgacatg | 240 |
| gctccagata tggtttgtct tctctatgat gttgcttctg cacattcatt gcactccggt | 300 |
| caaatatccg gctcgtgcat gttttaagat gttttcttag ctcattgctga catatgcttt | 360 |
| aaccatgcac tagtgatgat tacatgataa gggccattcc tcttagacct ttgggacaca | 420 |
| tcaaattg | 427 |

<210> 1967
 <211> 373
 <212> DNA
 <213> Eucalyptus grandis

| | |
|--|-----|
| <400> 1967 | |
| cttgaaactt ctccgctctt ctcttctctc tcttgaaagg aaggatgaga aaaccttggt | 60 |
| gtgacaagca agacacaaac aaaggagcat ggtcgaagca agaagaccag aagctcatcg | 120 |
| actacattcg caagcacggc gaaggatggt ggcgaaactct tcttaaggct gccggtctcc | 180 |
| tccgttgccg gaagagttgt aggctaagat ggataaacta tttgcggcct gacctcaaaa | 240 |
| gaggcaactt tgctgaggat gaagaggatc ttatcatcaa gcttcatgct ctctaggca | 300 |
| accgatggtc gctaattgct gggagattgc ccggacggac agacaatgaa gtgaagaact | 360 |
| attggaactc aca | 373 |

<210> 1968
 <211> 197
 <212> DNA
 <213> Eucalyptus grandis

| | |
|---|-----|
| <400> 1968 | |
| ggtcgcccga ggaagacgag aagctcttca actacatcac ccgattcggc gtcggctgct | 60 |
| ggagctctgt accgaagctc gccggactcc agagatgtgg aaagagttgc aggttgaggt | 120 |
| ggataaacta cctgaggcct gacctcaaga gggggatggt ctctcaagaa gaggaggatc | 180 |
| tcattgtcag tctccac | 197 |

<210> 1969
 <211> 365
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 1969 | |
| gcaaaatctt atttgggttc ccttacagaa actatacagt ccctgaatgc tgagcttgaa | 60 |
| agaactagat cggagttggt tgaagcaaag aagagagagg aagagattat ttcaaaagaa | 120 |
| gctgaaagag tagagaagaa taagagagaa gtggaaaatc tggaaactcaa tcttctgcaa | 180 |
| actactgcag aagctgggcg agctaaactg gaactagaga ctgcttatga agaggtgcag | 240 |
| agcgcaagac ttgaaactgc gcaattgagg gctgctttgg aagccacaga gggaaaattt | 300 |
| gaagcaatgc tgagtgcag taggttgagg gcagagcatg tcaaaggagc tattgagaag | 360 |
| tataa | 365 |

<210> 1970
 <211> 260
 <212> DNA
 <213> Pinus radiata

<400> 1970
 gaaatattgg tgactcaaat agagcaactt caaagaaagg aacggatggt tagcgaagag 60
 aataattttc tccgaaagcg gattgtcgat cccattccg ttttgacaac tcttgcaagt 120
 ggatctggaa gcctccaaag aagtgaagtc gagactcaac tggttatgag accgcccagt 180
 tcaaatgctg attttctttt taatagttct cattgataat cactgtattc atatctttgt 240
 tattaattta ttatgaaatg 260

<210> 1971
 <211> 332
 <212> DNA
 <213> Pinus radiata

<400> 1971
 tctctctggg gtgggggggca ctcaaaatgg ggaagacgaa gatggagatt aaacgcattc 60
 aaaaccctag ccgcccgcag gttactttct cgaaacgcaa gaacggattg ctaaaaaagg 120
 cattcgagct ttctgttctc tgcgatgctg aagtcgccct gatcattttc tcggaaactg 180
 gcaagatctg cgagtttgca agccacgacg acatggcaac aatactggaa aaatatcgaa 240
 tatacacgga aacacatgga aacatggagt cctcgtcggg ccaaagcgtg aagattgggtg 300
 aatcacaact caaagcgttg cgtgagaaga tg 332

<210> 1972
 <211> 413
 <212> DNA
 <213> Pinus radiata

<400> 1972
 cttcgagggt ctaattggctg cacaatacct tcaattggat tgacaagcat agaacgcgtg 60
 gaagttcaga ctcaactggg catgagacct ccacatgcc aagagatgga cgacaacttt 120
 atggatggtg acaacgtgcc actatctgga tgatgttttt ctgtttctgt tacataatat 180
 ggccactgat gacaccatac tttatttttg tatttgcttt aaaaatgact ctttctttca 240
 ctgacttttg atggactgta tgatagttga tttttggtcc tcatacttta gcaaatgggt 300
 atgggtacct gttttggccc gaggccttgg aggatctact ctctatatgt tactgtttta 360
 cttttttacat ttgtgctcac tgactcatat gatggacttg cccacatatg atg 413

<210> 1973
 <211> 521
 <212> DNA
 <213> Pinus radiata

<400> 1973
 agaagatggg agcttgggtga tctgtgaaag atctctctct gcgggtcaag gtatgcctat 60
 ggtatcacag tctcaaagct ttgtgcatgg tgaactctta tctagtgggt atttgatccg 120
 accctgtgaa ggcagaggag cattagtcac catgggtgat cacaggaact tagaggcttc 180
 aagtgtccct gaagcacttc gtcccttata tgagtcacat acattctttg cacagaagat 240
 gacagttgag gcttcttata atcttcaagg taaagttcaa ccggaaatga tttccttata 300
 aaaaaaactc caacagccat gtaatgtacg gtcatacagt caacggcttt gcagaggctt 360
 taatgaggca gtcaacacat tacctgatga tggctggatg tcattgtcca aagatgggct 420
 gggggatgtc actattttgtg taaagtcttt gtcaaattgc cgaaaccaa tgtcatcgtc 480
 aaatagccta tgttcaacag acatgggcat cttgagtga a 521

<210> 1974
 <211> 461

<212> DNA
<213> Pinus radiata

<400> 1974

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gaaaatgaaa | gccttcgagc | tcgtttaagg | catatgaatg | gcatgacat | caattcggtg | 60 |
| aagcttcccg | aactcttcca | tctcgaacag | cagcttgaaa | cggccgcaac | ccaagttcga | 120 |
| agaagaaagg | atcaagtttt | agacaacgaa | aaaatcaagc | gaaggaacaa | gatgcgccgt | 180 |
| aaggaagacg | agaacatcat | tcttcacgaa | atgcttgacc | agcaccatgg | acaaatggag | 240 |
| gaggataacg | ctcagattaa | tttcttattt | tgccaacat | taaatagatc | ggatactact | 300 |
| ttccctgcat | cactactccg | cctgcaacca | aatcagccaa | atttgagga | tattggatat | 360 |
| taattactga | acggaccatc | tgtgtgcatc | ataatgagaa | ggtcatggac | ttctcagtaa | 420 |
| cagtcaatta | tgaaaattcg | aagtttgtga | ggaaaaaaaa | a | | 461 |

<210> 1975
<211> 499
<212> DNA
<213> Pinus radiata

<400> 1975

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| tgagccccc | ggtggagcac | cgacctttca | gcccacatga | agacgccacc | atcatacaag | 60 |
| cccatgcgcg | gcatggcaac | aagtgggcta | cgattgccc | cctcctaccc | gggcgcaccg | 120 |
| acaacgctat | caagaaccac | tggaactcga | ctctgcgacg | tcgctatcat | ggcgagaaag | 180 |
| accagagcaa | cgggctagct | gtgaacttgg | agtcggcagc | tgaggacaaa | gaaacgatga | 240 |
| ctccgatgac | acctgtcaca | gccacggcaa | cggcaacggc | aacggcaatg | ccagtggctt | 300 |
| tagtggtccc | aacggctgca | gacaacgtca | ggaagcggag | caacagtagc | tgacgcgcta | 360 |
| atgacaatcc | aggagatgcc | gaggtcgaat | cctgtaggct | taagaggctc | aatttttctg | 420 |
| aatccccatc | tagttctgaa | aatattaata | ataataacaa | taatgaagaa | gctgttagtg | 480 |
| gccattgcaa | ttcggccgc | | | | | 499 |

<210> 1976
<211> 419
<212> DNA
<213> Pinus radiata

<400> 1976

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ctcagagctc | gacaaaacct | acatacatte | gtctgtcatc | cctcccagaa | atacctagt | 60 |
| agggcgatcg | aggtcgaaag | gggcatttta | cgccattgaa | gcggtgtgca | tagggccaac | 120 |
| tctgagaact | gattgtgtct | tccttcggag | ggagaggggt | agcgaggttc | agaaagagag | 180 |
| agaaagagaa | agtagtccta | agggactgtt | taaaatgggg | cgaggtccag | tccagctgag | 240 |
| aaggatagaa | aacaaaataa | atcgtcaagt | aacgttttcg | aagagacgga | atgggctgat | 300 |
| aaagaaggcg | tcagagctgt | caatcctgtg | tgatgcggaa | gtggccttaa | ttgtcttctc | 360 |
| caacaaaggc | aaactctatg | agttctccag | ttccagtatg | accaagattt | tggaagat | 419 |

<210> 1977
<211> 459
<212> DNA
<213> Pinus radiata

<400> 1977

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| gcaagctggc | ctccagcggt | gcgggaagag | ttgcaggctt | cgggtggatca | actacttgag | 60 |
| accagatctg | aagcgaggca | cattctctcc | gcaggaagaa | aatctcattg | ttgaactgca | 120 |
| ttcagtcctc | gggaacagg | ggtctcaa | agcaacacac | ctgcccgga | gaactgataa | 180 |
| cgagatcaag | aacctctgga | actcgtgcat | taaaaagaag | cttaggcaac | gaggcataga | 240 |
| tcctaacacg | cacaggcctc | tcagcgaggt | gaatgccgag | gcaggggatt | ctaagaacga | 300 |
| taacagcaat | aaagaagtcg | aaactcaggc | agccatggac | gaatctcatg | tttctgcagg | 360 |
| gaacgaattc | aagcatctga | atgcaattcc | tagggctgat | acggccaatc | ctaaattctt | 420 |
| tcatgttccc | gttgaggaca | acactttgat | tgctagcga | | | 459 |

<210> 1978
 <211> 331
 <212> DNA
 <213> Pinus radiata

<400> 1978
 ggagagtgc ccaccgagat ccacgcagtc gaagagaaa agaaatctgc aggaggagtt 60
 gaaaatgagg tgcacacgat ggcaaggctt cccattttcc tccaaaccaa aagttaaaaa 120
 ggggtctctgg tcgcctgagg aagatgagaa actcatcaat tatatgatga agaacggcct 180
 tctcggctgc tcttgaggct atgtggccaa gcagattggg ctgcagagat gcggaaagag 240
 ttgcagactg agatggacta actacttacg tcttggcctt aagcgggggtg caatttcgcc 300
 tgaggaggag caattgatca tacacttaca g 331

<210> 1979
 <211> 375
 <212> DNA
 <213> Pinus radiata

<400> 1979
 gttctatcaa acttcttatt caccataccc atttccatta gacggctgaa ttctcagatc 60
 caatttggtc cagccctcta gcgacagaag aagatgggaa gagcaccctg ttgtgacaag 120
 gcaaagtgtc aaaaaggacc ttggtcacca gaagaagaca caaaactcaa ggcgtttatt 180
 gaacagcatg gactgggtgg caattggatt gctcttccac agaaagctgg tctgaaaagg 240
 tgtggaaaga gctgcaggct tagatgggtt aactatttga ggccagatat aaggcatggt 300
 ggtttctcag aagatgaaga taacatcatt tgtagcctct atgcaagcat tggaagcatg 360
 gtgtctataa ttgca 375

<210> 1980
 <211> 749
 <212> DNA
 <213> Pinus radiata

<400> 1980
 gagcttcatt cgccattatt ggggtttcaat tcgatcttga tttgccagag acgatgtgaa 60
 ttaccattct gtgggcaaaa gcgagagagg aggagaatgg tgaggggaaa gaccagatg 120
 aaaaggatcg agaacgacac gagcaggcag gttacgtttt ctaagcgcag gaatgggtta 180
 ctgaagaaag cttatgagct ctctgtgctc tgcgatgccg aagtgggact tataattttc 240
 tcaccaagag ggaaactata tgaattcgcc agtcccagca tggaggagat tttggaaaag 300
 tataaaaaac gttcgaagga aaatggcatg gctcagacaa cgaaagagca agatactcag 360
 tattccaaac attccaaaca aaagctcgca aatatggaag aacagattag gattcttgaa 420
 tcaacccaaa gaaagatggt gggggaaggg ttggaatcgt gttcaatggc agaattaaat 480
 aagttagaga gccaaagctga acgaggattg agccatatac gggctcgaaa gacggaaata 540
 ttggttgacc aaatagaatg tcttaaaaagg aaggaaacgtc tcttaagcga ggagaacgcc 600
 ttactcagta gaaagtgggt tgatcgtaaa tccgtggacg gttccgggtc aacatcatct 660
 tcaattggat tgggaagcat cgagcagatc gaagttgaga cacaactggt tataagaccg 720
 ccaaatgcac aggatcactg ttctgtaaa 749

<210> 1981
 <211> 339
 <212> DNA
 <213> Pinus radiata

<400> 1981
 cttggctggg gaagacaacc cgctgcatta cggacattta gccagagatt gtgcaagggt 60
 ttcaatgagg cagttaattg cttcacagat gatggatggg ctttgatggg taacgacgga 120
 atggaggatg taactattct cgtcaattca tctccaagca aactgttcgg tcaacagttt 180

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gcttcttccg | atgggcttcc | tgctcttggt | gggggcatcc | tatgtgccaa | ggcttctatg | 240 |
| ctattacaga | atgttctcc | agcattgctt | gttcgtttct | tgcgagaaca | tcgatcagaa | 300 |
| tgggcagata | gtaatattga | tgctattca | gcagcctct | | | 339 |

<210> 1982
 <211> 373
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1982 | | | | | | |
| ggattccgac | ccttccggct | aaagctgctt | catttctgtg | tgtattgaag | atggggagat | 60 |
| ctccctgctg | tgaaaaagct | catacaaaca | aaggggctg | gaccaaagaa | gaggacgatc | 120 |
| gcctcatcgc | ccacattcga | actcacggcg | aagggtgctg | gcgctcgctt | ccaaggccg | 180 |
| cagggtgat | gcgctgctgg | aagagctgca | ggctccgatg | gataaactac | ctgcgtcctg | 240 |
| atctgaagcg | tgaaaacttc | tcagaagaag | aagacgaact | catcatcaaa | ctccactccc | 300 |
| tactcgga | caagtggctt | cttattgcag | gcagattgcc | cgggcgagcg | gacaacgaga | 360 |
| taaagaacta | ctg | | | | | 373 |

<210> 1983
 <211> 404
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1983 | | | | | | |
| aggcaataag | tgttattatt | gagaacttga | ctgtggctga | gattttcagg | gatggaccgt | 60 |
| tcaaactctg | cgactggaga | agaagatgta | ctgtcaagat | gcagggaaaag | aaaacgtttc | 120 |
| atgaagctgg | caattgagaa | caggtataaa | ctagcaacag | ctcatgtggc | ttacatggat | 180 |
| tctcttaggc | gtatgggcac | cggtcttcgg | ctttttgctg | aaggcgaaac | gatgtcggag | 240 |
| tcttctatt | ccacatcacc | catagggact | tctgaacttg | ctgttgctt | gcctgagaaa | 300 |
| tccgtatccc | catctccatt | tccatcctca | tccccttcac | tttctcaacc | tcaaagtccc | 360 |
| cgttcagaga | gagcagaatc | tcgatctcca | ctcgacagct | tctc | | 404 |

<210> 1984
 <211> 332
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| <400> 1984 | | | | | | |
| cggacggctt | ggttcaaaac | tctcgtgaaa | gaaaaaaagg | cgttccttgg | acggaagaag | 60 |
| aacataaaat | gtttttatta | gggcttcaca | aattgggaaa | aggcgactgg | agaggtattt | 120 |
| ccagaaactt | tgtcacttcc | agaactccta | ctcaagttgc | tagccacgca | caaaaatatt | 180 |
| ttcttaggca | gagtaatttg | aacaaaagga | aacgaaggtc | gagcctgttc | gatatatcca | 240 |
| ctgattcgat | ggaagattgc | tatcaaggaa | tcccggagct | gtcaccgggtg | atgcacgatc | 300 |
| tcagcctggg | ccagaattca | tctctgacct | ct | | | 332 |

<210> 1985
 <211> 526
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|-------------|------------|-----|
| <400> 1985 | | | | | | |
| ctcctctccc | gtctccaaac | ccaagctaag | gaaaggcctc | tggtcgcctg | aggaggatga | 60 |
| taaaactcatc | aactacatga | tgaaaaacgg | ccagggttgc | tggagcgatg | tcgccaagca | 120 |
| agctggtctg | cagagatgcg | gaaaaagctg | taggctgagg | tggattaact | atttaaggcc | 180 |
| cgacctcaaa | cgcggtgcat | tttcacccca | ggaagaacaa | ttgatcatatc | acttgcatte | 240 |
| cattctcggc | aacaggtggt | ctcagattgc | agcccgtttg | cccggacgta | cggacaacga | 300 |
| gatcaagaat | ttctggaact | cctgcataaa | gaagaagttg | aaacaccttt | cggcctccac | 360 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| caacaacagt | aaatctatct | ctgcacctaa | tcgtaccagt | accatgaatt | catcgatcac | 420 |
| gcccttttct | gaatcgtctg | ccgagccatt | ggagggtcatg | gcaacaaggt | atcagccatc | 480 |
| gaatgctttt | aatcatgaag | tgcccactgc | agaaaatcaa | gttttg | | 526 |

<210> 1986
 <211> 366
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 1986 | | | | | | |
| atcagactca | catcaaacga | aactggagcc | gtgaagggtt | agttgcggtg | ttaaattcta | 60 |
| ggacagcttt | ccgtattaga | aagaggcgcc | ctttacggga | gtcggcacca | aaccagagtg | 120 |
| gagagaaata | atgggtaggg | ctccctgctg | cgaaaaggtt | gggctcaaga | agggcccctg | 180 |
| gacgccggag | gaagatcaaa | agctcctcgc | ttacatacag | gagcacggcc | atggcagctg | 240 |
| gagggctctg | cctcagaaaag | ctgggttgct | aagatgcggg | aaaagctgca | gattgcgttg | 300 |
| gactaactat | ctaagaccag | atatcaagcg | gggaaagtgc | aaccacagg | aagaacagac | 360 |
| aattat | | | | | | 366 |

<210> 1987
 <211> 476
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1987 | | | | | | |
| ccgaactccc | cgctgtgac | aaatgggatt | aaaaaagga | ccctggacac | ctgaagaaga | 60 |
| tcaaatactc | atctcctata | tcaacaagca | tggtcatgga | aattggcgtg | cgctgcccac | 120 |
| gcaagcagga | cttatgcgat | gtggaaagag | ttgtcgctg | cggtggacaa | actatctgag | 180 |
| acctgacata | aaacgtggga | acttcagtct | caaggaagag | cagactatta | ttcatctgca | 240 |
| tcaaatecct | gggaaccgat | ggtcagctat | tgctcacac | ctccccggaa | gaacagataa | 300 |
| tgagataaaa | aatgtatgga | acactcattt | gaaaaaacgc | ctcctgcaaa | ttggggtaga | 360 |
| cccagtaacc | cacgcgccta | gaggatacaa | tgtatctaac | tgttacaccg | ctgtgaatat | 420 |
| ccgggaccat | catggcgagc | aggccgatca | tcagctccaa | agccatgtct | gcgttt | 476 |

<210> 1988
 <211> 151
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 1988 | | | | | | |
| ggacacctga | ggaagatcga | attcttatct | cctatataaa | aaggaatggc | catggaaagt | 60 |
| ggcttgact | gccgaaacaa | gcaggactta | gccgatgcgg | gaagagttgt | cgactgcggt | 120 |
| ggacaaacta | tctgagaccc | aacataaaac | g | | | 151 |

<210> 1989
 <211> 461
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|-----|
| <400> 1989 | | | | | | |
| gtaaccctac | aggagttctc | ttctgtccaa | ccccctaacc | tctccacttc | acagatctca | 60 |
| tgagacttaa | cctgtttctaa | cgttgcaggg | caataaccct | ctttgtctct | tgttctgtat | 120 |
| tttttgcttt | ttgaccacag | agcagggttc | acaagcttgt | acaaaggacg | cactgaaaat | 180 |
| gaaggatttt | tactgcagct | tatgttaagg | tttattttat | ataaacgatg | ggaactgggg | 240 |
| aagaagcaac | gccaaactaag | cctgctgcc | aaccatcttc | ctcctcccag | gagacaccga | 300 |
| caacacctgt | ttatccagat | tgggcagctg | ctttccaggc | atattatggg | ccagggtgcta | 360 |
| ccccacctcc | tcctgccttt | tttgcttcaa | cagtgggatc | tgaccaact | ccacatccat | 420 |
| acatgtgggg | tggacagccg | ttgatgccac | cttatgggac | t | | 461 |

<210> 1990
 <211> 418
 <212> DNA
 <213> Pinus radiata

<400> 1990
 gtagattcct tgtctatcaa gaggggtgcac aagggtttgtt ttttaagaaca cagacaggca 60
 gacagacaga gacgtgatca tggggcgagg gaagattgaa ataaagaaaa tagatgatgt 120
 aacgagcaga caggtaactt tctcaaagcg caagatgggg atattcaaga aagcccacga 180
 gctgtctgtt ttatgcatg cagaggtggc tgttctcatc ttttcaaaca ccggaaggct 240
 ctacgactat gctagttcaa ggtgtatgga acgaactatt gagagatatg aaaaatgtac 300
 caaagcaatt aattgcccac catcagatcc cattgtcgag aataagagcc caattcagga 360
 aggcattgaa atattgagggc agaaacttcg tgcattacaa agattgcaaa gaaatctg 418

<210> 1991
 <211> 321
 <212> DNA
 <213> Pinus radiata

<400> 1991
 actaaagcag ctataaagag actgcagtct cagataatgg ttgcattcca ggcagttgat 60
 acaacttctg cagcaattct gaaattgaga gaagatgaac tctatcctca actcgtggag 120
 ctatctaaag ggctaattgca gatgtggagg gccatgtatg aatgccacca ggtccaaaat 180
 catattgtcc aacaggtgag gcatttgggc aatctggcaa gcgcagaggg cacaagtagt 240
 taccatcagc aggcaacat tcaattggaa gctcaggtga ctgcttggtg tgacagtttt 300
 tgtagaatga taacgagcca g 321

<210> 1992
 <211> 390
 <212> DNA
 <213> Pinus radiata

<400> 1992
 gagaaaacct aagtcctctc gcagcaagca agccacgcat tccctctcta cgactcgggt 60
 ttggtgtaga aggcagagat ttactttgtt tctgcttgtt tgcgggtctt caccttcacc 120
 ttcagacaac atttgtctga accgcggaac tagctcttga aatattgaaa cccacctaaa 180
 tcgcagggga ttggtggatg ttagcagtggt tcacagagcg gtagagctag ggaaaatcca 240
 tatacaacta catacacaga taccattat cagccatggg cgctccgaag caaaaatgga 300
 catcagaaga agaaggtgct ctgcgagcgg gcgtggagaa gtatggcgcc ggcaagtggc 360
 agaccattct caaggacca gagttcgct 390

<210> 1993
 <211> 476
 <212> DNA
 <213> Pinus radiata

<400> 1993
 gcagtgggtca tatggatggg ggatccggag aggaccaaga tgccgccgat caagatcacg 60
 atcacgatca cgatcatgat cacgagcagc agcagacgag gaggaacgt taccacagac 120
 aactgtctcg tcaaattcag gagatggaag cggtgtttta ggagtgtcca catcctgatg 180
 acaaacaaag gcagcggctc agcattgaat tgggccttaa gccgcggcag gtgaaattct 240
 ggtttcaaaa tcggcgctact cagatgaagg ctcaacagga tcgctcagac aacgccattc 300
 tccgtgcaga gaatgaaaat ctgcggaacg agaacgtagc actccgagaa gcaattaaaa 360
 atggtgcttg tccaaactgc ggagggtcta catcgctggg agagatgcct ggattcgacg 420
 aacaccattt ccgtatagag aatacgcgct taaaggagga gcttgatcga gtgtct 476

<210> 1994
 <211> 429
 <212> DNA
 <213> Pinus radiata

<400> 1994
 gataaaactga gtgagcaaaa ttactcagaa agaaggaaga gcagaacaat tcgcccggag 60
 gaatggggttg cacacaaggg caacgacaag ggggaatggga agggaaaggc gtcccctcga 120
 attcctcaag gcgaagtcta agaaaagggtc tctgggtcacc ggatgaagat atagaactta 180
 ccacctatat catgagaaaag ggcctcatgg gctgctggaa ctatatcgcc aagcaggctg 240
 gtctgcagag atgtggaaaag agttgcaggc tgagatggat taactacttg cgacctgggtc 300
 ttaaagcttg tgcaatttca ccccaagaag agcgactgat aatacagtta caatccagtc 360
 tcggtaacag gtgggtctcaa atcgcggtcac atttaccggg acgcacagac aatgaggtca 420
 agaattact 429

<210> 1995
 <211> 321
 <212> DNA
 <213> Pinus radiata

<400> 1995
 agcgcgtctc tgtgaaaatg gggagatctc cgtgctgtga gaaggctcac accaacaag 60
 gtgcctggac ccaacaagaa gatacccgcc ttgtcgccca cattcgagcc catgggcaag 120
 gcggtctggag ctgcgttccc aaggcagcag gactgctgctg ctgtgggaag agttgcaggc 180
 agcgatggat aaactacctg catccagatc tgaagcggag taacttttca gaggaagaag 240
 atgaactcat cgtcagactc cattcgctcc tgggaaacaa gtgggtctctt attgctgggga 300
 gattgcccggg gaggacagac a 321

<210> 1996
 <211> 402
 <212> DNA
 <213> Pinus radiata

<400> 1996
 ccgcctccta cccgggcgca ccgacaacgc tatcaagaac cactggaact cgactctgctg 60
 acgtcgctat catggcgaga aagaccagag caacgggcta gctgtgaact tggagtcggc 120
 agctgaggac aaagaaacga tgactccgat gacacctgtc acagccacgg caacggcaac 180
 ggcaacggca atgccagtgg ctttagtggt cccaacggct gcagacaacg tcaggaagcg 240
 gagcaacagt agctgcagcg ctaatgacaa tccaggagat gccgaggtcg aatcctgtag 300
 gcttaagagg ctcaattttt ctgaatcccc atctagtctt gaaaatatta ataataataa 360
 caataatgaa gaagctgtta gtggccattg caattcggcc gc 402

<210> 1997
 <211> 375
 <212> DNA
 <213> Pinus radiata

<400> 1997
 ttagcttgca gaaaatgagg tgcaaaacag ggcaggcaca aggcgtattg gaagttgaag 60
 gcactcaccg tgctccttcc aaaccaaagt taagaaaagg tctctggtca cctgttgaag 120
 ataaccagct caccaactat atcctgagaa gaggcctcgt cggctgctgg aactatgtgg 180
 ccaagcaggc tgggtctgcaa agaaccggaa aaagttgtag gctgagatgg attactact 240
 tacgacctgg ccttaaactg catccaattt cagccaaga agagcagctc atcatagaat 300
 tacaatccat tctcggtaac aggtggtctc aaattgcggc acagttgccg ggacgcacgg 360
 acattgagat caaga 375

<210> 1998

<211> 466
 <212> DNA
 <213> Pinus radiata

<400> 1998
 acaacagctt gaatctagtc gaataaagct gaaacaaatt gaacaagagc ttgagcgagt 60
 gaagcaacag ggaatttcca tcaatggaca tttgggcat cataatggat caggggctgc 120
 tgcatttgat atggaatatg gccgttgggt tgaagaacaa aacagacaag cccgtgagct 180
 cagggcttct ttacaagcac acctgacaga tagcgaactt tgtgttctgg tggataatgc 240
 tatagctcat tatgatgaac tctttcgtat gaaggggtgct gcttccaagt tggatgtttt 300
 ccattcttatg tcaggcatgt ggaaaactcc tactgagcgt tgttttatgt ggatgggagg 360
 ttttcggcca tcagagcttc tgaagattct tactccacaa attgagcctt taacagaaca 420
 gcaatcattc gcagtatcta gcttgaaact gtcacacag caggca 466

<210> 1999
 <211> 243
 <212> DNA
 <213> Pinus radiata

<400> 1999
 ctgagagtta agtgattggt gggagggaaa agagaaaaaa gaggagatca agaattggtga 60
 ggggaaaaat ccagatgaag aggattgaga atacggccag caggcagggt acattttcca 120
 agcgtagaaa tggattgctg aagaaagctt acgagctctc gggtctctgc gatgcagaag 180
 ttggacttat gattttctcg ccaggaggaa agctctatga attcgccaat accagcatgg 240
 aga 243

<210> 2000
 <211> 642
 <212> DNA
 <213> Pinus radiata

<400> 2000
 cgagcgcgaa agactgaaat attggtgact gaaatagagc aacttcaaag aaaggaatgg 60
 atattaagcg aggagaatgc tttcctcggc aaaaagttcg tgcacctca ttcggttctg 120
 aaaactcctg gaagtgaatc gggaagcatc caaacagtg aagtcgagac gcaactgggt 180
 atgagaccgc catgtacaaa tgctcatttt cttattaata gttctcattg ataataatg 240
 tattcgtaac tgtgttatca atttattatg aaaattttat attaataaaa ggtaaagctg 300
 cttctcatat cgcaccta atgttcaccac gtccaaaaaa aggtctctgc caagtgaact 360
 aaatgttttt tgaaccgaag tctgtcttcc aaactcagta tgtaagcttg ctatgaatac 420
 atactttaaa ggttttgtat tagcattacg agcggagttt tcctcattca tccgatgagc 480
 atgaagagtg aggagtataa tattgacgca tgtggagaat ttaatgttgc atatactcct 540
 acgtgtatat atgtgatgtt ttatatatat atatatatat atataatatc gatttgaatc 600
 tataaaaattt taaattatat atttagttta aaaaaaaaaa aa 642

<210> 2001
 <211> 485
 <212> DNA
 <213> Eucalyptus grandis

<400> 2001
 gagagagtct gcaaaactgc cgtcccgcgt cgccgatcgc cgggagaatc gccgccggcg 60
 agatatgggg aaccagaagc tgaagtggac gaaggaggag gaggaggcgc tctcgcggcg 120
 aatcgccaag cagggcgccg gcaagtggaa gaacatcctc aaggaccccg aattcgcccc 180
 cgccctcgtc aatcgctcca acatcgacct caaggacaag tggcgtaact tgagcgctcg 240
 tactttctgga caaggttcta gagataaaca aaggctgtca aaagtgaaaa gtctgatggc 300
 cgctcctcag tccagtaccg tgcctctaaa tccacaagct catgctgcat ctactgatgt 360
 tgcattgggtc aattcttcaa atagctttca agatggcaaa aattattcac tgtgggtatc 420

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| tgtgtctcctt | ttccttttca | gtaacggcaa | tcttttttac | ttctatcctt | tgttatcctt | 480 |
| tctgt | | | | | | 485 |

<210> 2002
 <211> 356
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 2002 | | | | | | |
| cgactcgtca | gtcagctcgt | gcactccttg | caattcatga | ttatttctcc | cgacttcggg | 60 |
| cccttagttc | cctctggctt | gcccgtccaa | gagaatgaag | aggatcatgg | ctatgcaggc | 120 |
| tgacatgtac | attgggtgatc | tttaggaagc | tatcagtttt | gaagtagttt | cggacctaga | 180 |
| actggtttat | ttctagtttt | cttcattttt | tttttctttg | gctataatta | ttttttcttt | 240 |
| cttagacacg | aagtcacaga | gaattgattg | atgggatgct | aagctatcat | agggtgggat | 300 |
| tgcattgttc | tcattgaaga | tactgcta | tgtgtaggca | ctcctgttca | ttagtc | 356 |

<210> 2003
 <211> 713
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| <400> 2003 | | | | | | |
| tctccatcca | aattcccacc | ttcctccctt | cctccctttc | cccccttctt | tccttctgca | 60 |
| ccgaaggaag | ccccgccttc | gcaagccacc | tctcggtaaa | gttcgctcct | ttttgggtcg | 120 |
| gcgaatcttg | ggtcgatcga | tggcttcgag | gaaggagggt | gatcggatca | agggaccgtg | 180 |
| gagccccgag | gaggacgagg | ccctccgcct | cctgggtgcag | aagcacggcc | cccggaactg | 240 |
| gtccctcatc | agcaagtcca | tccccgggcg | gtccggcaag | tcgtgccgcc | tcgggtgggtg | 300 |
| caaccagctc | tccccgcagg | tggagcaccg | ggccttcacc | ccggaggagg | acgacatcat | 360 |
| cgtccgcgcc | cacgcccggg | tccgcaacaa | gtgggccacc | atcgcccgcc | tcctctccgg | 420 |
| gcgacccgac | aatgccatca | agaaccactg | gaactccacc | ctcaagcgca | agtgtcctcc | 480 |
| cccgtctctc | ccgtctcgcc | aggaagggaa | caacagggcg | ttcgacgctg | ccgcggggta | 540 |
| cgacggggac | ttgagcccg | gggagcggcc | ggcgaagcgg | tcggcctccg | ccgggccttg | 600 |
| cctgagcccc | ggcagcccgt | ccggatccgg | catgagcgac | tccagcgtgc | acttcgtgta | 660 |
| ccggcccgtc | gcgaagaccg | gccccgtggt | gcccccgacg | gtcgaggcga | cgg | 713 |

<210> 2004
 <211> 341
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2004 | | | | | | |
| acaggttgct | caattaagag | ttgagaattc | tactttactg | aaacgtctct | cggacataag | 60 |
| ccagaagtac | aatgtagcag | ctgttgacaa | cagagttttg | aaagctgatg | tcgaaacctt | 120 |
| gagagcaaag | gtgaagatgg | ctgaagagac | ggttaaaaga | gtaaccggac | tgaacccaat | 180 |
| gctgcatgtg | atgtccgaca | tgtcttctgt | gggtgtgcc | ccatttgatg | gtagtccttc | 240 |
| tgatacatca | gcggatgctg | cagttcctgt | gcgagatgac | ccaaagcacc | aattctatca | 300 |
| aaccaattct | agtaaccccg | catcatctgc | tgacgatatg | a | | 341 |

<210> 2005
 <211> 1403
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2005 | | | | | | |
| ttctttcttc | accctctgtg | catgaatttt | cttgggccat | gctcatgcat | tctcctcctc | 60 |
| tttcttcatc | accatcgta | tcgtctctga | ctttgatggg | ttggcgaggg | ggggagctga | 120 |
| gggagaggga | gaggagagga | gagaggagcg | gctgtgcgtt | cgcgtgcagg | gctgcacgag | 180 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|------|
| gtgttctcgt | ttcgggcgcg | ggcgctctgc | ttccatggct | gcttttaagt | aagacgccaa | 240 |
| aagaaaacct | ttttgctctc | tcgagtgtca | tgaactcgca | ctgaaagtgc | gcgccgaacc | 300 |
| gagaagaaga | agaagaagaa | gaagaagaag | aaagagaaac | catcccccta | gaaaacgcga | 360 |
| aaaagagtaa | atagtaaaaa | gagcaagctt | gatcttactt | gatctaaaac | attaagatcc | 420 |
| ttctctgttc | gagagaagtc | acagtcccg | tttttccaga | catgaagaga | cttggcagct | 480 |
| cagattcgtt | gggtgctttg | atgtccatct | gcccaccttc | agaggaattg | cagcacagtc | 540 |
| cgagaaacgg | caaccccatc | taccacagca | gggacctgca | gtccatgctg | gagctgggac | 600 |
| tcgacgagga | aggctgcgtg | gaggaccagt | ccgccggcg | cggggggcac | gtcggcggcg | 660 |
| agaagaagcg | gcggctgagc | atcgaccagg | tcaaggccct | ggagaagaac | ttcgaggtgg | 720 |
| agaacaagct | cgagccggag | cggaagggtga | agctggccca | ggagctgggg | ctgcagccgc | 780 |
| gccaggtggc | cgtgtgtgtc | cagaaccgcc | gcgcgcgggtg | gaagacgaag | cagctggagc | 840 |
| gggactacgg | cgtgtctcaag | tccagctacg | aggcgctcaa | gctcagctac | gacgccctca | 900 |
| agcacgacaa | cgaggccctt | cacaaggaga | taaaagagct | gaaatcgaaa | ctccgggaag | 960 |
| aagacgacaa | ccccgagagc | aatctctccg | tcaaagaaga | ggtcatcatc | cccggccacg | 1020 |
| acgtgtcggg | caagatccgg | gccgcagacg | acggtgacga | cgacacaaa | cgctctcctc | 1080 |
| cccctccgat | caccgccccg | cctcgcgagc | tgaacttcaa | caatgggtggg | ctgaaggacg | 1140 |
| ggtcgtccga | cagtactcgc | agtgcatttg | tgaatgaaga | gaacgcggcg | accagcagca | 1200 |
| gcagccccga | ccccgccgtc | cagagccacg | gcggcttctt | gaaattcatg | gggtcatcgt | 1260 |
| cctcttcggc | ctccccaccg | ccgtcggcac | cggtctcctt | cggcgggtgc | ttcagcttcc | 1320 |
| agttccagcg | agcgtaccag | cctcagcctc | agcctcctca | tcaccaccac | caccacagtc | 1380 |
| cgtacgtgaa | gatggaggag | cac | | | | 1403 |

<210> 2006
 <211> 283
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2006 | | | | | | |
| gagaggtaca | agagtgcag | cagtgattcc | tcacatccac | agtccgtttc | tgacgtgaac | 60 |
| actcagtttt | atcagcaaga | agcatccaag | cttcggagac | agataagaga | aatccaggtc | 120 |
| tcagataggg | atcttctagg | tgagggtata | agtgatttga | gcttcaagga | tctcaagaat | 180 |
| ctcgagagca | aattagagaa | atcgatcagc | cgtgttagat | caaagaagaa | tgagatgctt | 240 |
| tttgccgaga | ttgagtacat | gcagaagagg | ggccttgctg | agg | | 283 |

<210> 2007
 <211> 252
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2007 | | | | | | |
| agagaacaag | ataaacaggc | aggtagacct | cgctaagagg | aggaatgggc | tgctcaagaa | 60 |
| ggcctatgag | ctctctgtcc | tctgcgatgc | tgaggctgcc | ctcattatct | tctccaccgc | 120 |
| cggcaagctc | tatgagttct | gcagcagccc | tagcatgctc | aaaacgctcg | accgttacca | 180 |
| aaagtgcagc | tatggatccg | ttgaagttaa | caaaccctcc | aaagaactag | agaatgccta | 240 |
| ccgggagtag | tt | | | | | 252 |

<210> 2008
 <211> 386
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2008 | | | | | | |
| tctagatcca | ccaccagcag | aaggaggtag | aagggggaga | aggaggagaa | ggaggaggag | 60 |
| atgggtagag | ggaagataga | gatacagaag | atagagaacg | acacgaacag | gcaagtgacc | 120 |
| tactcgaagc | ggagggaatg | catcttcaag | aaagcccacg | agctcaccgt | cctctgcgac | 180 |
| gctaggggtt | ccatcctcat | gctctccggc | aacaagaagc | tccacgagta | catcagcccc | 240 |
| accaccacga | caaaaaggat | gattgatgat | taccagaagg | ctcttgggat | cgatctgtgg | 300 |

actacacact acgatagaat gcaagaggag ttgaggaaac tgaaggaggt taataacaat 360
tttcggaagg aaataaggca gatatt 386

<210> 2009
<211> 123
<212> DNA
<213> Eucalyptus grandis

<400> 2009
gagaaacctt atgggggaag atttggggac cttgaactcg aaggagctcg agcagctcga 60
acgtcaactt gaggcatcat tgaagcatat taggtcaact aagactcagt gcatgctcga 120
tca 123

<210> 2010
<211> 581
<212> DNA
<213> Eucalyptus grandis

<400> 2010
cttagggcta gcttgcttac atcttcacca tcttctgcgt agtttcaaca ttttagagtt 60
gaagaaaagg agaaaaaact aggcaaactt gcgaccatgg tttttccaac ccaagccacg 120
cccgaggagt ccccgagag gaaaatgggg aggggaaaga tgcagatcaa gcggatcgag 180
aacacgacga atcggcaagt gactttctgc aagcggcgga atggcctcct caagaaggca 240
tatgaactct ccgttctttg cgaagccgag gtcgccctca tctgtcttctc cagccgcggc 300
cgctctatg agtatgccaa cgatagtgtc aaagcaacca tgcagaggta caagaaggct 360
tgctcagatt cctccagtag cggatccgtt tctgaagcta atgttcagtt ttatcagcaa 420
gaatccgcca agttgcaaca acagattaat aacatgcaga acaataacag gcaactgggtg 480
ggtgactcaa ttgctgggat gaatatgaag gatatgaaga ctacggagca aaaactagaa 540
aaagcaatcg ctaaaattcg cgccaaaaag aatgcgattt t 581

<210> 2011
<211> 538
<212> DNA
<213> Eucalyptus grandis

<400> 2011
tcagcacaag gaacaaatgc tgggtgaagc taacagagaa ttaaggaaga agctggaaga 60
gagcaatata agaatccctc tccgccttgg atgggaagct gaggatcaca ataacatttc 120
atacagccgc cttcccatgc agtcgcaagg attgatcttc cagcccttag gcggcaaccc 180
gacattgcag atcgggtaca atcctgcagg ctgcaatgaa ttgaatgttt cggctgccga 240
ccaacatccc aacggattca ttcccgatg gatgctctga atcggtccgc aagtgaactg 300
cttgctggaa gttccatatac aagtacattt tccagttttt gctatgatat atgactcttc 360
ttcttctgga tgacctatac gaagatccat cattcgtgga tattgtccat ggacgtacct 420
taaaaggaag gacagtatga atccaatcta gcttactatt ttgtataaga ataaacatct 480
gtgctgctga tatttggaaat tcattctatgt tattttaatga aaaaaaaaaa aaaaaaaa 538

<210> 2012
<211> 341
<212> DNA
<213> Eucalyptus grandis

<400> 2012
aggcagcaaa gagctcgagt ccttggaaaag acagctagat gggtcattga agcagatcag 60
atcacgaaga actcagtaca tgtagataa gctgactgat cttcaacatc gggaacagtt 120
gctccacgaa gcaaacagga ccttgaatca acggttgatg gaaggatacc aagtgaatgc 180
gctccagtta aatcaacatg ccgaggaagt cggaggatac ggtcatccac cgccgccgcc 240
actgccgcca cagccacttg ctacgcctca cagcgaagct tttttcaatc ccttggaaatg 300

tgaaccact ttgcaaagg gataccagcc cgatccagt t 341

<210> 2013
<211> 934
<212> DNA
<213> Eucalyptus grandis

<400> 2013
gcgccatgac gcggcgatgc tcccactgct gcaacaaggg ccacaactcc aggacctgcc 60
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cctccacctc ctctctctgg gccgcggcgg cgggcggggc ctggcctccc ggcggggggg 180
tgaagctgtt cgggggttagg ttaacggacg ggtcgatcat gaagaagagc gccagcgtgg 240
ggtgcctgtc cgccgcccac taccactcct cgtcctccgc cgcggcatcc ccgaacccc 300
gctcgtcccc gatcgacggg agcgacgggt acctgtccga cgatcccgcg cccggctccc 360
gctcgtccaa tcggcgcgct gagaggaaga aaggtaaccc atggacggag gaagagcatc 420
gaagggtttt aattgggtct cagaaattgg gtaaaggaga ctggcgaggg atagctcgtg 480
actttgtgac tacaaggact cctactcaag tggcaagcca tgcccagaag tattatatcc 540
ggcagagtaa tgctggccga agaaagaggc gctccagcct ttttgacatg gctccagata 600
tggtactgct tgaccaaccc tcacatccag aagaaacatt tctgcctcct ttggtcagac 660
ttaacgatga tactaactca acaacttcaa ccagtatggg actcgatttg gaaagaacgc 720
ctatggagac ctgcgaccca gaaacatctg aagggggcgg tgatgttgcg atggaatcaa 780
ttgatcaagt acctcttgta cctgttact tcccatacta tttaccacta ccctttccca 840
tgtggccgcc caacatggcg cctcctgaag atggaagggt ggtggagaca tctcatcacc 900
gtgtgctaaa gccaatccca gtaattccaa aaga 934

<210> 2014
<211> 372
<212> DNA
<213> Eucalyptus grandis

<400> 2014
ctgggacact tcttcttccc ctctactttt acttgaatcg gtcgacaatt ttatcctgtc 60
tccagctaga actggaaagg ctgaatcaga gtgtctttct ccccgtaata gtgggctgct 120
ggatgcttta gttcacgagt cgaagactat gagcagtgcc aaaaataatt cacctgaaaa 180
aagtacaaat tcatctgctc tgacacctgg tgatataagc agttccactt tggatatttg 240
caagtctgaa tgggaagagt atggtgaccc catttctcca cggggccatt ctgcaacttc 300
agttttcaat ggttgactc ctttgagcac tagtgggaagc tctactggatg aacaaccgta 360
tcccataacc tt 372

<210> 2015
<211> 411
<212> DNA
<213> Eucalyptus grandis

<400> 2015
gcacataaga aggaagctct tgaaccgagg gatcgatccg gcgacgcacc ggccattgaa 60
tgagcccgcc caagacgcaa ccactatttc gttcgcagcg gctccgtcaa aacaagaacc 120
gcgagacgac gccatcgccg ccgcgctcgg ctacaagaac gagaacaacc cgacaacaac 180
ggcagcaacg gttcaagaaa agtggtcccga cttaaactct gagctcagaa taagccctcc 240
ttgccagcag cagcatcagc ctgatgcgtc gatgggaatg gttgagggaa atcactgctt 300
tgcttcgagc ctgggggttg agaacagcaa ggagtgcagt tgcaggagag gagcgagcgg 360
gggaagcagc gcccatggcg gctacgactt tttgggggtg aagacgagcc g 411

<210> 2016
<211> 356
<212> DNA
<213> Eucalyptus grandis

<400> 2016
ctcgtcccca aggttttttt gcggaagtat ggagttcccg agtgaatttt cagaggcctc 60
ttcacagaag agaatcgggg ggagagggaa aatagagatc aaacggatcg agaacacgac 120
gaaccggcag gtcacctttt gtaaaccgcg gaacgggttg ttgaagaagg cttatgagct 180
atcgggtgtg tgcgatgctg aagtggcgct tattgtcttc tcgagccgtg gcaggctcta 240
tgaatatgct aacaacagtg tcagaggaac aattgagagg tacaagaaag caagcagtga 300
ttcctccaca tcccacagtc cgtttcctga agtggaaacac tccagtttta tccagc 356

<210> 2017
<211> 356
<212> DNA
<213> *Eucalyptus grandis*

<400> 2017
agagagtaat ggggagaggg agagtggagc tgaagaggat agagaacaag atcaacaggc 60
aggtagacct ctcaaagagg aggaatgggc tgttgaagaa ggcctatgag ctctctgtgc 120
tgtgtgatgt tgaggtcgcg ctctcatct tctccagccg tggcaagctc tatgagtttg 180
gcagcgctgg cccttctggc ataaataaga cgcttgaacg ataccaacgt gacaacttca 240
ctcctcaaga caacgttgct gaacatgaga cacaacagaa ctggtttcaa gagatatcaa 300
aattgaaggc aaaatatgaa ctcttcaaca aactccagaa gcatttgctt ggaaaa 356

<210> 2018
<211> 495
<212> DNA
<213> *Eucalyptus grandis*

<400> 2018
caaggaagca acagtcttgc tgcaaccaga agctagtcca aactagtgga aggttgtggg 60
cgcttccagt gctttgtaaa gccaccccaa gaaagcaaaa accatcgctg ccctaccaca 120
aagttcgcag cgttcgtcga cgagaggagt ctggtgattt atccaagtgt tgtttaaagt 180
agatctcctt tttcgggtgaa catggctcgt ggaaaagtcc agatgaagcg gatcgagaac 240
ccggtgcacc ggcaggtcac ctcttgcaag cgccgcgcgg ggctcctcaa aaaggccaag 300
gagctctccg ttctctgtga cgctgacatc ggctcttcca ttttctcccc ccacggcaag 360
ctctatgagc tggccaccaa aggaaccatg aaggggctga tcgagaggta catgaagacc 420
acccaaagcc aagctgctct gaccgaggaa gccacaccga gccaaccact ggatgccaaa 480
gaagagatta acata 495

<210> 2019
<211> 613
<212> DNA
<213> *Eucalyptus grandis*

<400> 2019
agaaagagag acagagatat gggaagaggg aaagtagagc tgaagaggat agagaacaaa 60
atcaacaggc aagtaacatt tgcaagaga agaaatgggc ttctcaagaa agcttatgag 120
ctctctgttc tctgtgatgc tgaggttgcg ctcatcattt tctccaaccg tggcaagctc 180
tatgaattct gcagcagttc tagcatgatg aaaacaattg agaagtacca gaagtgcagc 240
tatggttcac ttgagaccaa ctgctccatc aatgagatgc agaacagcta ccaggattat 300
ttgaagctaa aaacaagagt ggaggtcctc caacgatctc agagaaacct ccttggggaa 360
gagttgggtc ccctaaactc gaaggagctg gagcaacttg agcaccagtt ggagaattct 420
ctgaagcaaa ttcggtctgc aaagacccaa ttcatgtttg atcaactggc tcatcttcag 480
cacaaggaac aaatgctggt tgaagctaac agagaattaa ggaagaagct ggaagagagc 540
aatacaagaa tccctctccg ccttggtatg gaagctgagg atcacaataa catttcatac 600
agccgccttc ccc 613

<210> 2020

<211> 564
<212> DNA
<213> Eucalyptus grandis

<400> 2020
atcccccttgc cttgttcaac tctctctttc tccccctcct tctactgcca atatcatatc 60
cgaagctttg gcttcgacga cgaggctcac ggaaattaga gaaccatgag gaagccttgc 120
tgcgacaagc gggacaccaa caagggggcg tggccaagc aagaggacca gaagctcatc 180
gattacattc aaaagcacgg cgagggtagc tggcgaactc ttcctcaagc cgccggtctg 240
ctccgttgcg gcaagagttg ccggctgaga tggataaact atctgaggcc ggacctcaag 300
agaggcaact tcgcagagga tgaggaagat ctcatcatca aacttcatgc actcctcggc 360
aaccggtggt cgcttatagc tggaagggtg ccgggacgta cagataacga agtcaagaac 420
tattggaatt ctcacctaag gaggaaactc ctaaagatgg ggattgacct caacaatcac 480
cggttgaacc aaaatctccc tcgctctcaa acccgatgc ctcggcagca cttcctcatc 540
cagtatgaag accacatgac cctg 564

<210> 2021
<211> 410
<212> DNA
<213> Eucalyptus grandis

<400> 2021
tggaagctct gcagcaatct ctctgtggaca cactttcttc gaccacactg agtcctactg 60
gttcaggcaa cgctcgagaa tacatgggccc aaatggctat tgcgatggga aagttggcca 120
ctctcgaaaa ctctgttcac caggctgacc tcttgagaca gcagacgctc caacagatgc 180
atcgatatt aaccacccgc caagcagccc gcgctcttct cgtcatcaat gactacatct 240
cacgtctccg agctctaagt tcattatggt tagctcgtcc taggactgaa aacatctggt 300
ctgctaaact cttctgatgt aatcgatagt tttgattgaa attaacgttt ctagtgggga 360
tccatttact gcgactgtag cgattcgggc cacatttata taaaagctat 410

<210> 2022
<211> 328
<212> DNA
<213> Eucalyptus grandis

<400> 2022
cgaccggttg atgaagccct ggcagatccc atgtccgata caaccataa tagcgtccgc 60
agacctgttt gagtgtgat gtatcgattg ctgttgcaaa tgtggaacta gcgctttgga 120
ttttagtctc ttacctctg tgtttgatgt gaattattgtc cgatgtctct gatgttctta 180
cttcatcttg ttggcagtg taaaatgtca gtttcgtgct tgttgactgg attggctctc 240
ttttttgtac aagggggtgt cgtttttcac cctcattagc ttgtgaaatt tgcgatgatg 300
tgaatgggtt taacaaacct atattagc 328

<210> 2023
<211> 380
<212> DNA
<213> Eucalyptus grandis

<400> 2023
ccaacaagtc atatatcctc gacttgcctc cagtggaaacg ccttccatta cttaatcgct 60
gctagcgcta aacccccctc actcttcacc agcaaaaacg ccttttctcg cacacaaatg 120
ggctgcgtgta aaattgaaat acagccaata acgcacgagc gaaaccgatc tgtcacattc 180
ctcaagcgca agaacgggct gttcaagaaa gcgtatgagc tcggtgtgct ctgctctgct 240
gacgtcgctg ttatcatctt tgaggatcgc ccagggcaca gcccgaagct ctaccagtac 300
tcgtctcgcg gtatccagga tattgtgcag aggcattctc atcacgacgg cgagactgat 360
aaccgtggcc ctggggactt 380

<210> 2024
 <211> 322
 <212> DNA
 <213> Eucalyptus grandis

<400> 2024
 cgagacagaa ccttcttggt ggggcttgag aagcttggga aggggtgattg gagaggcatc 60
 tctaggagct atgtgaccac aagaacaccg gcccgaggtg caagtcatgc tcagaaatat 120
 ttcctccggc aagtgaagctt caacaagaaa aagcggcgct cgagcctctt tgacatggta 180
 aaaaatcagt gctcctataa actattacca tcatatcggc tatcatcaat tagtttgatg 240
 gggtttgata aattcttatt gtataaggtt gatgtcaaaa ccgcgggcggg tgatcgttta 300
 ggcagtttga cggccaagcc ga 322

<210> 2025
 <211> 387
 <212> DNA
 <213> Eucalyptus grandis

<400> 2025
 gaaagaaggg agtagagaag gaggtgacat aaatttgcca cagaggcaac ggactttggg 60
 agagatgaca ttggaggagt tcctagttag agccggcggt gtgagggagg acacacaaat 120
 gatggcaagg cctggcgaca atggagttca tgaagaaatg tcacaattca ctagtaattg 180
 tctcgccagt agtgcggctg ctggaaacga tttcatattc tctagtaagc ctgctgggtc 240
 atcgtttagat tttattggaa ctagacctac tcagctacag caacaaccac agccacagcc 300
 gcttgaacca ccggctccgc tttttccaaa gccggaaact gtgtcatttg caacctccgt 360
 gcatctacca aatacagctt catatag 387

<210> 2026
 <211> 450
 <212> DNA
 <213> Eucalyptus grandis

<400> 2026
 gcgaatgctc ctctccggat tgccatgaac tccaacgctt cctccaaccc ccagtcgatg 60
 gccacctcca cgacgtcggc gaccacgccg gcggcgggcg gcgacggcgg caagaaggctc 120
 aggaagccct acacgatcac caagtccagg gagagctgga ccgaggagga gcacgacaag 180
 ttctctgagg cctccagct gtttgaccgc gattggaaga aaattgagga ttttgtgggc 240
 tcaaagactg tcattcagat ccgaagccat gccagaaat acttcttgaa agtccaaaag 300
 aatggggcag ttgcacatgt tccacctcct cgtcctaacc gcaaagctgc tcatccctac 360
 cctcaaaagg catcgaaaaa tgttttagtg ccgctgcaag catccatggc ccagccttct 420
 tcaacaaatc ctgcttttac aattacacct 450

<210> 2027
 <211> 786
 <212> DNA
 <213> Eucalyptus grandis

<400> 2027
 ccaaacatcc atcgtccat cagctctaaa ctttaattgt aatcacatcg tcctttctcg 60
 acaccaactg ggtcaaatgc ttaaaaaaag gaaaaggaaa agagaaagat gacgtttcct 120
 tccttctctc ccaccaccgc tctcttctat ttatctctc tctctcttct tcctccatg 180
 agcgggtgctc ttcaggttgg atgcaccact tcaactcaac ctcaatacat aaacgtcgtg 240
 ttgggaaaag gataaaggca gggagaagga gatggggagg tcaccgtgtt gcgagagcga 300
 gcacatgaac aaaggggcat ggagcaagga ggaggacgag cgcctcatcg cctacatcaa 360
 gcgccacggc gaaggctgct ggcgatccct tccaaaagca gccggcctgc tgcgctgcgg 420
 caagagctgt cgcttgaggt ggatcaacta cttgaggcca gatttgaagc gtggtaactt 480
 ctccgacgaa gaagacgagc tcattatcac cctccacagc ctctcggca acaagtggtc 540

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gctgatagcg | gcacggttgc | cggaaggac | agacaacgag | attaagaact | actggaacac | 600 |
| ccacatcaag | agaaagcttc | acgcacgcgg | gatcgatccc | caaaccacc | gtcctcttcg | 660 |
| actacaccag | cactgctggt | gctgggtgctg | ctgccacttc | acactatctg | ttctaacgct | 720 |
| aacaacagcg | gcaacaaggc | cacgcctcac | tcgacgactt | gtgaagaatt | atcatcatca | 780 |
| tcaaca | | | | | | 786 |

<210> 2028
 <211> 476
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|-------------|------------|-------------|------------|-----|
| <400> 2028 | | | | | | |
| agaagcgctg | agttcttggg | caaagtctag | cagtttcggg | ttctccatca | atcgagtcgg | 60 |
| agtgggagaa | aatgagcaca | aatggtttgc | tgaagtttga | ccaaagtctt | tagtgagatg | 120 |
| gttgctgtct | ccggttctcc | tccaaacaga | tgtctgatca | aataacttac | ttgaccgcca | 180 |
| gtatgaactc | tccttttagcc | cagcttggtta | acccaagaag | gatgcacacc | tacgagccat | 240 |
| ttgaccagtt | ccccatgtgg | ggagacacct | tcaaagctga | caagggtcaaa | aatctcgagg | 300 |
| catcgctatc | tgtgatcggt | catgcagtag | atgatggatt | ggacaagaag | tttgaatatg | 360 |
| tttctcatga | atcggcgagaa | aattccagct | ccaggagcga | tcaagaagca | aatagacctg | 420 |
| acaaggtaca | gagacgtcta | gcacagaacc | gtgaagctgc | tcgaaaaagc | cgtctg | 476 |

<210> 2029
 <211> 535
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 2029 | | | | | | |
| cagccggatg | taccttagtg | tactgaatag | cctaaagcca | tgttcctatc | agatgttaac | 60 |
| ttgcatatgg | aaatgaatat | tacaacatgc | gcgctttctt | gagttttttt | tccctctgta | 120 |
| gttgcacgcg | aagaagcgct | gagttcttgg | tcaaagtcta | gcagtttccg | ggtctccatc | 180 |
| aatcgagtcg | gagtgggagg | tatgaactct | cctttagccc | agcttggtta | cccaagaagg | 240 |
| atgcacacct | acgagccatt | tgaccagttc | cccatgtggg | gagacacctt | caaagctgac | 300 |
| aagggttaaaa | atcttgaggc | atcgctcatct | gtgattgtgc | atgcagtaga | tgatggattg | 360 |
| gacaagaagt | ttgaatatgt | ttctcatgaa | tcggcgagaa | attccagctc | caggagcgat | 420 |
| caagaagcaa | atagacctga | caaggtacag | agacgtctag | cacagaaccg | tgaagctgct | 480 |
| cgaaaaagcc | gtctgcggaa | gaagaaatat | gtacaacaac | tagaatcaag | ccgct | 535 |

<210> 2030
 <211> 723
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|-------------|------------|-------------|-----|
| <400> 2030 | | | | | | |
| gtgaggcgct | gcctccacca | ccaccgccgt | ccccaccgcc | gccgccgcca | ccaccaccac | 60 |
| caccaccacc | accaccttat | actgtacaaa | taatcccttg | gcctcggccg | ttatagcctc | 120 |
| ttactcaaaa | atcagttttt | acccttttct | gttgcgtagt | cgtagttttg | ggccaggggt | 180 |
| tctattcggt | atatgtagag | aagtcagtgg | gcgaaaccga | gcgtcgagcg | gtcggccatg | 240 |
| gcttctctct | cttctgtagc | ttccgcgagg | aaggacgcgg | atcggatcaa | ggggccgtgg | 300 |
| agccccgagg | aggacgaggc | gctgcagagg | ctgggtccaga | gctacggccc | ccgcaactgg | 360 |
| tccctgatca | gcaagtccat | cccggggcgg | tcgggcaagt | cgtgccggct | ccggtgggtgc | 420 |
| aaccagctct | cgccccaggt | ggagcacccg | cccttcaccc | cggaggagga | cgaggccatc | 480 |
| gtccgcgccc | acgccaggtt | cggcaacaag | tgggccacca | tcgctcgctt | cctcaacggc | 540 |
| cgcaccgaca | acgccgtcaa | gaaccactgg | aactccaccc | tcaagcgga | gtgctctctc | 600 |
| acgtgctcgg | ccggcggcga | cgacgccgac | gccttcgcgg | agcagcagcc | gctcaagcgg | 660 |
| tcggccagcc | tcgggacgcc | cacgggcggc | aacaacgccg | tctccgatct | gttcttcagc | 720 |
| ccg | | | | | | 723 |

<210> 2031
<211> 412
<212> DNA
<213> Eucalyptus grandis

<400> 2031
gctctctctc tctctctctc tctctctctc tctctctgtg gtggttttct tctgtttttg 60
gctgtgatca gacaaacaaa aaccatctgg ttccggcgtct gaacaagaaa aaatttgaga 120
agggattcaa ggaagatggc gaaagagaag ataaagataa agaagataga caacttgacg 180
gcgaggcagg tgacattctc gaagaggaga agagggctga tcaagaaggc cgaggagctc 240
tccgtttctgt gtgatgctga cgtgtccctc atcgtcttct cagccactgg caagctctat 300
gatttctcca gctccaggca gatgaaggga gaggatctgg aggggttaaa cgtggaggaa 360
ttggaccaat tagagaagaa actcgaggcg ggactgagcc tcgtgatcaa ga 412

<210> 2032
<211> 495
<212> DNA
<213> Eucalyptus grandis

<400> 2032
gagttaccac cacccttttg ttttattttc gatcctgcat ctctcaaaat gaggaaacct 60
gatgcctctg ggaagaacag ctccaacagc aacgctaaca agctgagaaa aggactctgg 120
tcgcctgaag aggacgacaa gttgatgaac tacatgctca acaatggcca aggctgctgg 180
agcgatgtgg cccggaacgc cgggctgcag cgggtgtggca agagtgtccg cctccggtgg 240
atcaactact tgcggcccgga cctcaagagg ggcgctttct cccacaaga ggaggagctg 300
atcatccact tgcattccat ccttggcaac aggtggctgc aaatcgcggc tcggttgccg 360
ggacggactg acaacgaaat aaagaacttt tggaactcga ccataaagaa gaggtcaaga 420
actcgtcatc atcttcttgt agacactcgg caaacacgag cgattctcct tgtcatcaga 480
cgttaaagat gtatg 495

<210> 2033
<211> 220
<212> DNA
<213> Eucalyptus grandis

<400> 2033
gcccccgaga tcgcgccgcc gctcgcggcc cctcgcggcg ggcaccaccg gcgggcgcac 60
tccgaggtca atttccggat cccggaggac ctggatctgg ggccggatcc gtccgagaac 120
gggcccctcg ggagcttcga ggacttcgga tcggaggatg atctactcag cacctacatg 180
gacatcgaga aattcggatc aagctcgacg cgggcagggg 220

<210> 2034
<211> 445
<212> DNA
<213> Eucalyptus grandis

<400> 2034
cttctgagaa tgtgtccggt ggagccatcg aacgtcccag agccacggga aaattggctg 60
cgcctgtaaa ctgccccagc atgtcctcat cattggacct gaagaattct tgcattgatg 120
caaattgcaa ccctgtgagc attttgcaac ctgggtgtagt gccacctgaa gcttggttac 180
aggtaatgtc actctgtggt aggttactta aaatatctcc ctggaaggcc agtacttctg 240
ttctttctgc tgtttcttca agttgtctct tacaatatca tcgactttgt ttctcaaaat 300
tcgctttgtg taagaatgaa agagaactga aaaggagag gaggaacag tcgaaccgtg 360
aatctgctag aagatcaaga ctgaggaagc aggctgagac tgaagaactt ggcaaaaagg 420
tggattctct gagtgccgag aatag 445

<210> 2035

<211> 349
<212> DNA
<213> Eucalyptus grandis

<400> 2035
 tttttttttt gtatataatc tcttttatttc tagtttagga aaattcagaa agaagccgtg 60
 aaggaacttc atccaatggc gatggaaaat ctgaagtgcaggaaagggtt gctggggagg 120
 tggatgctgc ttctgagaat gtgtccggtg gagccatcga acgtcccaga gccacaggaa 180
 aattggctgc gcctgtaaac tcgcccagca tggcctcatc attggacctg aagaattctt 240
 gcatggatgc aaatgccaac cctgtgagca ttttgcaacc tgggtgtagtg ccacctgaag 300
 cctggttaca gaatgaaaga gaactgaaaa gggagaggag ggaacagtc 349

<210> 2036
<211> 648
<212> DNA
<213> Eucalyptus grandis

<400> 2036
 gagagagaga aagccagaga gagaaagagg aggatttttg atgaacgtat attcattggg 60
 aggtgctagt catggggagg caaccgtgct gtgacaaatc cgggggtgaag aaaggaccgt 120
 ggacggcgga ggaggacaag aagctcatca acttcacatc caccaacggc cactgctgct 180
 ggcgtgccgt ccctaagctt gccggcctcc gccgtgcgg caagagctgc cgcctccgct 240
 ggaccaacta cctccgcccc gacctcaaac gcggcctcct cagtgaggct gaggagcagc 300
 tcgtcatcga cctccatgcc cgcctcggca acaggtgggtc gaagatcgcg gcaagggtgc 360
 ccgggagaac cgacaacgaa ataaagaacc attggaacac ccacatcaag aagaagctgc 420
 tcaagatggg gatcgatccc gtgaccacag agcccttgaa caagcctcag aaaactccat 480
 ccgaacacga cccggaagct tctctgtcgt catcgcaagc ggaccctacg tccgaatcgc 540
 ccgccaacac gcaccaaccc aacaacgccc acgcgagcga agtacaactc gtccctcgctc 600
 tccccgtcgg cctgtccgcc gagaactggt gtcgggcag ggacgagt 648

<210> 2037
<211> 268
<212> DNA
<213> Pinus radiata

<400> 2037
 ctgagcagaa atatggatga cgtatttgggt cagcgctgca acagaaactt tacagctcga 60
 gatcggctaa tctctaaaga gagaaggaat ttccgggtggg tttgtggcgt tactgaagag 120
 gaagaagaac ttattatcag aatgtataag ctctgtggga acaggtgggtc attgattgct 180
 gggcgcttc ctggtcgaaa agctgaagag attgagagat attggaagat gagaagcata 240
 aatgctgcac ctctgaagcc taatacct 268

<210> 2038
<211> 1055
<212> DNA
<213> Pinus radiata

<400> 2038
 ggcgaatcga gctccagtct ctgcccttag gcacacgtac aacatacgtg gctaacagag 60
 ataacaccca aagcctatcc agccatgggt gatggatgggt tggacagtga tacaggcagg 120
 agaggggttca gctggaccac agttttggat agaattgggt cttttgcctc ctcggtctct 180
 actaatcttc tgactttggc agtatgtctt ccgtgatata tttaatgtgt atacgttctt 240
 ttggggattg cgagacagca gatccaagtc tgggctgtgg atctggaacg cattttaagc 300
 tctggtctct tcaattgggt ttctgtgtagc gagctccatc acaatgggtc aagaattggt 360
 gatgatgtgt tccaactgtg ggcacagtgg gcacagctcc agagcctgtc ctgatagagg 420
 atctgtcaaa ttgtttgggg tcagggtcat tgctacagac gatggcatgg cctgcatgag 480
 aaagagcctc agtatgggca atctcggtca ttaccgttca ctttacaatg tcaatcactg 540

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|------|
| ttctgggaca | agcgaatgtg | gatctgcaga | tcaggatggg | tatttgctctg | atggatttgt | 600 |
| tcattcttcc | agcaatgcac | gcgagaggaa | aaaaggcgtc | ccatgggtcgg | aggaagagca | 660 |
| caggatgttc | ttgtatggac | tggaaaagct | tgggaagggt | gactggagag | ggatatccag | 720 |
| gaattttgtg | acgaccagaa | cacccacaca | agtagccagc | catgcccaga | agtattttct | 780 |
| aaggcagagc | aatcttaata | aaaggaaacg | tcgatccagt | ctctttgata | tgtgtcctca | 840 |
| tgattcccat | gtcacaagct | cttttcgcag | agaagactca | ttgggaaacc | tttatgaatt | 900 |
| ttcgccaaaa | cattcggtt | tgggggtatc | gcctaatttc | gaactatatt | catttggtgt | 960 |
| ttctccaact | ttatctctag | gaagatccct | gcaaccagt | gaagcagttc | ttgaagagaa | 1020 |
| agcagcccat | tatcatcctg | tgaactcaga | agaag | | | 1055 |

<210> 2039
 <211> 167
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2039 | | | | | | |
| tggttacagc | tctgtagcgg | aatagatgaa | catgcagctg | gattctgttc | tcaacttgtg | 60 |
| tttgcaccaa | ttgatgcac | ttttgctgat | gatgctctc | tggtccctc | tggtttccga | 120 |
| gtaattcctc | tagaatcggg | atcagaatgt | ttctcctcca | aaacgga | | 167 |

<210> 2040
 <211> 357
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2040 | | | | | | |
| ggagtgttga | aattcccctg | ttttgatctg | ataactatga | atctgatgga | gtcttttgag | 60 |
| gcaaagggaa | agggagagaa | gaggagaacg | gtgaggggga | aaaccagtt | gaagagaatt | 120 |
| gagaacggga | ccagcaggca | ggttactttt | tgtaaagcga | ggaatggtct | gctgaagaaa | 180 |
| gcgtacgagc | tgctcagtgt | ttgtgatgcc | gaagtggcac | ttattgtttt | ctccccaaga | 240 |
| gggaagctgt | atgagttcgc | taatcccagc | atgcagaaaa | tgttggaacg | atacgaaaaa | 300 |
| tgttcagaag | gaagtaacct | gacgagtaca | gcaaaagagc | aagacgtcca | gtgttta | 357 |

<210> 2041
 <211> 438
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 2041 | | | | | | |
| ccgaagcaag | atcagaaact | cgttacttac | atacaggagc | atggccatgg | cagctggagg | 60 |
| gctctgccgc | agaaagctgg | gttgctgaga | tgcgggaaaa | gctgcagatt | gcgttgggct | 120 |
| aactatctaa | ggccagatat | caagcggggg | aagtccactg | tgcaggaaga | gcagactatt | 180 |
| attcaacttc | atgcactact | tggaaacagg | tggtccgcca | ttgctactca | ccttcccaag | 240 |
| cgaaccgaca | acgaaatcaa | aaactactgg | aatacccacc | tgaagaagcg | cttgctgcag | 300 |
| atgggaatcg | accccggtgac | gcacaagccc | aagtccgaat | cgattatggt | acctggtggt | 360 |
| cagtcgtcca | atgggtcctc | gaatctgagc | catatggcgc | agtgggagag | cgcgcgctg | 420 |
| gaagccgaat | cgaaggct | | | | | 438 |

<210> 2042
 <211> 319
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2042 | | | | | | |
| ggaattttca | ttggaggaag | ttgtgttggt | ggggatcaaa | gtcattcaat | gagtggaaat | 60 |
| ggagccctag | catttgatat | ggagtatgct | cgttgggttg | atgagcatca | tcgacagata | 120 |
| aatgaactga | ggtcagcagt | gaactcacat | gtgggggaca | atgagctgcg | tggtctggtt | 180 |

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| ttctcgaaac | gcaagaacgg | attgctaaaa | aaggcattcg | agctttctgt | tctctcgcat | 120 |
| gctgaagtcg | cccttatcat | tttctcgga | actggcaaga | tcagcgagtt | tgcaagccac | 180 |
| aacgacatgg | caacaatact | ggaaaaatat | cgcatataca | cgcaaacaga | aacagatgga | 240 |
| aacatggggg | cttcgtcggg | ccaaagcgtg | aagggatggt | ttcctaattt | tctcgagatt | 300 |
| gcgggattca | gtgtttgtgg | atgatcccta | ttattgcagt | gtgggttggg | gcacgagggg | 360 |
| tgcagttgac | tcgactcata | tgattggaag | gttgggtgaat | cacaattgaa | agcggttcac | 420 |
| gagaggatgg | acaatttgaa | aaaacaggaa | cgaaacatgg | ttggtg | | 466 |

<210> 2051
 <211> 390
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2051 | | | | | | |
| gtttgaagta | gaatttacct | atcaattgcg | ttaaagatac | tctgttttcg | gccctgaacc | 60 |
| ctaccagggg | aacgcggcgc | catgtcttcg | aggagctggt | cgttgtgcgg | ccttaatggc | 120 |
| cacaattccc | gtacctgtgt | gggaagtggg | gtgatgctct | ttggggttcg | tctgacggat | 180 |
| ggaccaatga | gaaagagtgc | tagtatgaat | aatttgtcaa | acttatctca | atatgagcac | 240 |
| tcggatccgg | ctgaggttgc | cgctgaaggt | tttgatgggt | acgtctcgga | tgacctcggt | 300 |
| cattcatcca | gcaatgcccg | tgagaggaag | aggggagtg | cctggacaga | ggaagaacac | 360 |
| cggatgtttc | ttgtcggcct | tcagagagtc | | | | 390 |

<210> 2052
 <211> 312
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2052 | | | | | | |
| gtttgaaggg | gaacgcggcg | ccatgtcttc | gaggagctgt | tcgttgtgcg | gccttaatgg | 60 |
| ccacaattcc | cgtacctgtg | tggaagtggg | tgtgatgctc | tttggggttc | gtctgacgga | 120 |
| tggaccaatg | agaaagagt | ctagtatgaa | taatttgtca | aacttatctc | aatatgagca | 180 |
| ctcgatccg | gctgaggttg | ccgctgaagg | ttttgatggg | tacgtctcgg | atgacctcgt | 240 |
| tcattcatcc | agcaatgccc | gtgagaggaa | gaggggagtg | ccctggacag | aggaagaaca | 300 |
| ccggatgttt | ct | | | | | 312 |

<210> 2053
 <211> 393
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|-----|
| <400> 2053 | | | | | | |
| cgaggctcgag | tccagctgag | gaggatcgaa | aacaaaatca | gtcgtcaagt | aactttttct | 60 |
| aagagacgga | acggactgat | gaaaaaggcg | gcggagctgt | caatactgtg | cgacgctgaa | 120 |
| gtggccttaa | tcgtcttctc | caacaaagac | aaactgtacg | agttcgccag | ttccagtatg | 180 |
| accaagattt | tggaagata | tcggaagcgt | tcaaatttaa | tacaagatat | cggtaaagat | 240 |
| ccacagaatt | cagacattga | gttgacgcgt | ctaaaagaag | aggttgaccg | cttaciaaaga | 300 |
| tccagaaggc | atcttttggg | tgaagacctt | catcaactag | gtgctacgga | tctgcaacac | 360 |
| ttagaacaac | agcttgaaga | agcgttacaa | aag | | | 393 |

<210> 2054
 <211> 210
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 2054 | | | | | | |
| cacagttctg | gaacctgtta | aagagaaatc | agtcgaggtc | aaactccttc | tgtttgcacg | 60 |
| aggatgcca | gcattatgga | gaagcaaaat | agtggtgaag | atagtgatag | caagggctcag | 120 |

| | |
|---|-----|
| cttgataatg gcaagtatgt ccgttacacc aatgagcagg tggagacttt agaacgtgct | 180 |
| tataatgaat gctcaaagcc cagcacaagg | 210 |

<210> 2055
 <211> 385
 <212> DNA
 <213> Pinus radiata

| | |
|---|-----|
| <400> 2055 | |
| aaaattgaga atactacaag cccggcagggt acattctgta agcgggaagaa tggggttgcgtg | 60 |
| aaaaaagctt atgagttatc tctgctgtgc gatgcagaag tggctctcct cattttctcc | 120 |
| accagtggga gactctatga atttgcgaaat aagagtgtta gcgcgacaac ggagcgggtac | 180 |
| atgagaacct atgcagagaa catgcctcag tctcgagctc tgtatccgga ttgtcaccat | 240 |
| tggcaagagg aagtcagaaa acttacacag caacgtgata gtctaaccacaa ttcgatcaga | 300 |
| caaataatgg gtgaaggcct tgaatcatta agcatgaagg agctcaagca tattcaagtt | 360 |
| caattggaaa aaagtattag ttgtg | 385 |

<210> 2056
 <211> 545
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 2056 | |
| tgaagacctt gatgattgta tccatccacc ggagaagaag agaaggctga ctgctgacca | 60 |
| agtgcagttc ctggaacgaa gctttgagat cgaaaacaag ttggaacctg agcgcaagat | 120 |
| acagctagcc aaggagttgg gcctccaacc taggcaagtt gcagtctggt ttcaaaaccg | 180 |
| gcgggcaagg tggaaaacaa agcagttgga aagggtattat gatattctga aatcacgcta | 240 |
| tgagaatttg agagttgatt atgatagcct gctcaaagaa aaggataaat taagggtcga | 300 |
| ggttaccttc ctaacagaca agctacacga cagtgaccat gaagccctca caaaggattc | 360 |
| tgagtctgct gacaagaaag tctatcccca gcctgcctcc cactctgact gtgttgggga | 420 |
| gcctgaaaga agtactgctg ccaaggatac accaccagggt tgtaaacacg aagatcttct | 480 |
| gagctctgga acagatagca gtgggggtcct ggatgaagat agtcctcacc atgttgactg | 540 |
| tggtc | 545 |

<210> 2057
 <211> 385
 <212> DNA
 <213> Pinus radiata

| | |
|--|-----|
| <400> 2057 | |
| aaacttgctc acggattccg acccttccgg ctaaagctgc tgcatttctg tgtgtattga | 60 |
| agatgggggag atctccctgc tgtgaaaaag ctcatacaaa caaaggggag tggaccaaag | 120 |
| aagaggacga tcgcctcatc gccacattc gaactcacgg cgaagggttc tggcgctcgc | 180 |
| ttcccaaggc cgcagggtcg atgcgctgcg ggaagagctg caggctccga tggataaact | 240 |
| acctgcgtcc tgatctgaag cgtggaaact tctcagaaga agaagacgaa ctcgatcatca | 300 |
| aactccactc cctactcggc aacaagtggc ctcttattgc aggcagattg cccgggagga | 360 |
| cggacaacga gataaagaac tactg | 385 |

<210> 2058
 <211> 436
 <212> DNA
 <213> Pinus radiata

| | |
|---|-----|
| <400> 2058 | |
| aaagaagggt gttccctgga ctgaagaaga gcacaggcag tttttgatgg gccttcgcaa | 60 |
| gtacggcaaa ggcgactgga gaagtatttc tagaaacttt gttgtgtcaa ggacaccaac | 120 |
| ccaagtggcc agccatgctc aaaagtacta cattcggctt ggttcggata ataaaaacaa | 180 |

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gagaagatcc | agcatacatg | atatcaccac | tgttcatggt | acagacagga | tgctttctcc | 240 |
| tttactgcac | gtttctaata | ggcagactaa | ttccccctca | acacaggcag | aaatgaatca | 300 |
| ttcaccatgt | ctggacatat | ccatctcaga | tttcacgagg | acctctaata | aactctttgg | 360 |
| gacctcaaat | agatggtaac | cttctatatt | cacctcacta | tcctctaaat | ctgtataccc | 420 |
| agagagggtt | tggggg | | | | | 436 |

<210> 2059
 <211> 624
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <400> 2059 | | | | | | |
| tttttattca | aatgacagca | cgacttccct | tcctcagatg | tttcccaggc | tgcaatcatc | 60 |
| agctgcagca | ccacgcggtt | ttggattctc | cctgttcttt | gttctgttgc | gttaaagatt | 120 |
| ggttgacagt | cgaatcgccc | aggccgattt | gaattctcct | gaggattgac | aagatgacgc | 180 |
| gcaagtgtct | gcactgtggc | aacaacgggc | ataactccag | gacgtgccct | aaccgcggcg | 240 |
| gggtgaagct | cttcggcggt | cggcttaccg | atggcccgat | cagaaagagc | gctagtattg | 300 |
| ggaatttgat | gatgatgtcc | aaccctagct | ctcccgtga | ccctccgag | ccggcctctg | 360 |
| ccgctgtctc | tgccgcggcg | gcgccggcca | gtggctatct | ctctgatggt | cttgttgaag | 420 |
| cctccacttc | ctccaattct | cgcgagcgga | agaaagggtg | gccatggaca | gaggaggaaac | 480 |
| atagaatgtt | tttgctaggt | ttgcagaagc | ttggcaaagg | tgattggaga | ggaatagcac | 540 |
| ggaattttgt | cataacacga | acacctacac | aggtagccag | ccatgcacag | aaatatttta | 600 |
| ttcgacagag | caatatgact | agaa | | | | 624 |

<210> 2060
 <211> 364
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|-------------|-------------|------------|-----|
| <400> 2060 | | | | | | |
| atcgaggaaa | accagaatct | tctcattttc | acttgctgtg | ggttttctctg | gactaacgat | 60 |
| gaagatgtct | ctaccttcta | atgtttctac | tctcagtgcg | gattccaatt | ctaattccaa | 120 |
| ttcgatctcc | tcgtcaggag | acgaactcgc | cgcaaagggtg | aggaagccat | acacaatcac | 180 |
| aaagcagaga | gagagggtga | gtgaagatga | gcattcttaag | tttctggaag | ccctgaaaat | 240 |
| gtatggccga | gcattggaggc | gaatcgaaga | gcacataggc | acgaaaacag | ctgtccagat | 300 |
| acgaagccat | gctcagaagt | tcttctccaa | gttggttaagg | ggatcttcaa | ataaagggtg | 360 |
| gtct | | | | | | 364 |

<210> 2061
 <211> 258
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 2061 | | | | | | |
| gagggataga | catgaatcgg | ggtccggcta | ccaatgagtc | tgagtattcg | tcggttttcc | 60 |
| aggccgatgc | cttgccggacg | attgacactg | gttccgtggt | agtgaagcga | gagcgagaaa | 120 |
| gaacctttga | gttgaggcg | gagagggatc | gaacctgcga | cgtgagttcc | aggacaagcg | 180 |
| acgaggagga | gataggttcg | acgaggaaaa | agcttcggct | ttccaaggag | cagtctgcac | 240 |
| tcctggagga | aagtttct | | | | | 258 |

<210> 2062
 <211> 347
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <400> 2062 | | | | | | |
| aacttgaggt | cactcacgtt | gaaagaattg | caacaactgg | aaaagcaatt | aggcagggct | 60 |

| | | | | | | |
|------------|------------|-------------|-------------|------------|------------|-----|
| ataaaaaaga | tttataataa | aaagatgaaa | ataatttcac | aatgttgcaa | atcattatca | 120 |
| gaaaaggtac | gctctttgga | agaggagaat | agtgaacttc | ttaccaagtt | gattcctaga | 180 |
| gccgattcct | ccacttctgg | ggctgcggtta | tttggttgata | catccatgcc | aaaatctcac | 240 |
| tcagcaaccg | aagcatggcg | acaactcctc | cagcgagtcc | ttgtgacagc | agcgaagatg | 300 |
| gcgacaactc | ctccagcgag | gcacagtaat | tcccgaccga | accacta | | 347 |

<210> 2063
 <211> 267
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2063 | | | | | | |
| tggcaaggca | acatcgggat | ctgcaaataa | ggccatgtca | caaagtgggg | acagtggcag | 60 |
| tgacgggttc | agcgaaggaa | gcgaggaata | taacactcaa | actgagtcac | aagtggcgag | 120 |
| aaagagaagt | tttgatcaaa | tgatagtaga | tggagccaat | gctcagagta | ccaatattca | 180 |
| atcatataat | tcccaggctg | gagaacccta | tgtgacttcc | ggcgggcatg | caatgggtaa | 240 |
| tcccattagt | caagctgttg | ctgcagt | | | | 267 |

<210> 2064
 <211> 336
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 2064 | | | | | | |
| tcaacttaaa | tggaaggaac | ggatcttaac | cgaagagaac | ctttttcttc | gtaaaaagtg | 60 |
| tggtgatgaa | catgtggatt | gttcggcttt | tagaacacct | ccagcacaac | ttagaagcat | 120 |
| ccagaacatt | gatgtggaga | ctcaactggg | tataagacct | ccaactgtac | aacagcacc | 180 |
| tgacgtcgat | agtcctcgat | aactgttgca | tatgcaaatt | ttctactttc | atgaaataaa | 240 |
| caaacagtac | acctcatttt | gttcgccttt | tgtaaacgta | taattactac | tgcatatgta | 300 |
| agctttcttc | tcaaaaaaaaa | aaaaaaaaaa | aaaaac | | | 336 |

<210> 2065
 <211> 573
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| <400> 2065 | | | | | | |
| cgcagatcgg | gactgcaaac | agaaccatag | ttctgcaaca | ttcaatggga | cggactcctt | 60 |
| gttgcttgaa | agtgggactc | aatcgagggtc | cctggacacc | cgaggaggat | ctttgcctct | 120 |
| caaattacat | cgaagctcac | ggagaaggcg | ggtggagaac | acttccaaag | aaagcagggtc | 180 |
| tgctccgatg | cggaagagt | tgcagattgc | gttgatgaa | ttatctccga | cccgatgtga | 240 |
| aacacgggca | catattaccc | gaggaggaag | atttaatact | cagggttgc | cgtcttcttg | 300 |
| gaaacagggtg | gtctttgatc | gctggacgta | tgcccggcag | aacggataat | gaggtcaaga | 360 |
| actattggaa | taccacctc | agcaaaaagc | ttatcagtc | gggtatcgac | ccgcggacgc | 420 |
| acaaaccgtt | gtcagaatcc | gaagacatat | gttcgagtcc | cggaatagc | gaagtgagcc | 480 |
| gcaagtctca | acgggaaaat | aacgctgaaa | taccaagaaa | agttgccgat | ggcgcagttg | 540 |
| atattcaaga | taaggaagag | gatatcacag | aag | | | 573 |

<210> 2066
 <211> 407
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2066 | | | | | | |
| atttaactgg | gattgcaagc | tgcttggtgt | gtttctgtgc | ttcaagcgaa | gggaagggaa | 60 |
| gacattccta | gagaagaaaa | aatcaatat | caatggggag | ggggaagatt | gaaataaaaa | 120 |
| tgattgaaaa | tacagcaaac | aggcaagtca | cattctctaa | gagaaaagga | ggacttctta | 180 |

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| agaaagctca | cgagctctcc | gttttatgca | atgcagaaat | tgctctcatc | gttttttcca | 240 |
| acactggcaa | actccatgat | tggatcaagct | ccagcatgaa | aaaagttatg | gagaagtacc | 300 |
| agaaatcgga | tcaaggacta | ggacttatgg | actaccaaca | acaacagctg | ttgtgtgaaa | 360 |
| tgaaacgaat | caccaaagaa | aatgaaagcc | ttcgagctcg | tttaagg | | 407 |

<210> 2067
 <211> 407
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2067 | | | | | | |
| atgctttgtg | gccggttcaa | atatttgagc | tggcttagct | tctctgggtc | agaaatggcg | 60 |
| gactaaagta | atagtgtgcc | ccgaggtctg | gtgttcgaat | ctcgttggcg | tgaaaggtca | 120 |
| aatttttctc | tcgagtttca | ttgattctga | aaaactggca | tagctatggc | gatgagcaat | 180 |
| gggagattgt | gtgaagattt | ggataggatt | aagggggcgt | ggagccccga | ggaggacgcg | 240 |
| tcgctgcaga | ggcttgttca | gaaatacggg | ccgaggaact | ggaccctgat | aagtaaagga | 300 |
| atcccggggc | gatccgggaa | atcgtgcagg | ctacggtggg | gcaatcagct | gagccctcag | 360 |
| gtggagcaca | gaccttttac | cccgtccgag | gatgctgcta | ttctgca | | 407 |

<210> 2068
 <211> 353
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| <400> 2068 | | | | | | |
| attttttctg | tagatgggtg | gaggacgtgc | tgaatagtgc | ctaaatcggt | tcttccgcgt | 60 |
| ttgggtcatcg | aacgagttcc | tataactcgc | caagaccagg | ttcttcacgg | actactaatt | 120 |
| ttgggcttct | acacatcttt | cccgggaagta | gatggggcgg | gcactaggaa | gaacagaaat | 180 |
| aaagaggata | gaaaatgaag | tgagcaggaa | tgtgagtttt | agaaagagac | gacgtggatt | 240 |
| gctgaagaag | gctgcggagt | tgtcaatact | ttgcgatgca | acagtgggcg | ttgttgtttt | 300 |
| ctctccggcc | gggaaacttt | ctgaatatgc | cagcacttcg | gagcaaatgg | ata | 353 |

<210> 2069
 <211> 393
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2069 | | | | | | |
| attcgaaacc | ctaccaatcg | gcactcatcc | ttctacaaac | gcaagggcgg | tttgcttaaa | 60 |
| aaagcatttg | aacttgctgt | tctctgtgat | gctgaagttg | ctctgataat | cttctctgaa | 120 |
| accggcagga | tttacgagtt | tgcaagccac | gatgatgtga | ccacagtatt | ggcaaaatac | 180 |
| cgaatacaaa | cgaaaactgc | cggaaacgca | atgccttcat | cgcttcaaaa | aacagagttt | 240 |
| gatcaattac | aagtcaggat | ggtgcaggag | aagatagaca | atttgagaaa | aacgaaaaag | 300 |
| catatggctg | gtgacaattt | ggagtcactg | acgtggaagg | aattgcaaca | agtcgaaaag | 360 |
| aaattaagca | aggctacaaa | aataattgtg | gcc | | | 393 |

<210> 2070
 <211> 461
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <400> 2070 | | | | | | |
| cagcctgttg | ctcctgaaag | catcgctcct | cctcatcagc | cgccgcacaa | ccaaacgcgg | 60 |
| aaccaatata | tgcaaggatg | gtgggtttga | tattttaacat | ttatcattat | cagttacttc | 120 |
| aatcacaaca | aaagcccaaa | gcgtggtaaa | ttacgaaatt | agaattatat | tatcattaaa | 180 |
| aaaaaacctt | attttcattg | tatagcagta | ggcttgattt | actgctatga | tagcggaggt | 240 |
| tttattgggc | aaacaaaccc | tactggtata | ttagaccttc | ttgtcgacaa | agtttaattg | 300 |

| | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| cataaatctt | gtatgcta | ctggccgcta | aaagagcgat | ggaaaaatag | ttgtcccatt | 360 |
| cacaacacat | gatatgttta | aatccaacgt | gtatgtgtct | gcaaaatatt | attatacact | 420 |
| acgggtttatc | acatggtagt | cgattcgcca | taaaaaaaaa | a | | 461 |

<210> 2071
 <211> 373
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|-------------|------------|-----|
| <400> 2071 | | | | | | |
| ggattccgac | ccttccggct | aaagctgctt | catttctgtg | tgtattgaag | atggggagat | 60 |
| ctccctgctg | tgaaaaagct | catacaaaaca | aaggggctg | gaccaaagaa | gaggacgatc | 120 |
| gcctcatcgc | ccacattcga | actcacggcg | aaggttgctg | gcgctcgctt | cccaaggccg | 180 |
| cagggctgat | gcgctgcggg | aagagctgca | ggctccgatg | gataaaactac | ctgcgtcctg | 240 |
| atctgaagcg | tggaaacttc | tcagaagaag | aagacgaact | catcatcaaa | ctccactccc | 300 |
| tactcggcaa | caagtggctc | cttattgcag | gcagattgcc | cgggcggacg | gacaacgaga | 360 |
| taaagaacta | ctg | | | | | 373 |

<210> 2072
 <211> 506
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|------------|-------------|------------|------------|-------------|-----|
| <400> 2072 | | | | | | |
| ggactgcaga | ggaagacaga | aaactgggtga | attttatcac | cctgcatggc | catggatgct | 60 |
| ggcgcggaagt | acccaaactt | gctgggtctgc | ttagatgtgg | caagagttgt | agattgcggt | 120 |
| ggacaaatta | cttgcgccca | gatttgaagc | gtggattatt | gtctgaatca | gaggagaagc | 180 |
| tcattcattga | tctacatgct | gccataggga | ataggtggtc | acgaatcgct | gcgcaattgc | 240 |
| caggggagaac | tgataacgag | atcaagaatt | actggaacac | gaggatcaag | aagaaactgc | 300 |
| gccagatggg | aatcgatcct | gtgactcaca | agcctctcac | ccaaatgcaa | atgcagagca | 360 |
| cccctgcca | gactctgctg | ctgcaagaaa | atgatacaga | gcagcagcag | caggagcaac | 420 |
| ataatgagcc | tgatcctgat | cagaatcaga | gcagcaatgg | cactgtggag | acattgggtct | 480 |
| cgagggccag | agaacccac | gaccac | | | | 506 |

<210> 2073
 <211> 494
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| <400> 2073 | | | | | | |
| attcagatgg | aacaacaaca | atgtctacat | atgaaagaaa | agccagtctt | cgagaattct | 60 |
| atgctgttat | atatecttcc | ttgctgcaac | ttgaaggagg | tataacagag | atggaagata | 120 |
| ataagcagaa | actgatttgc | aaagaaagat | acaagaaacg | tgttgatgaa | gaaaggagac | 180 |
| atctttctga | gcttgatctg | gaacgtgaaa | aagagtgtgg | aatatgtatg | gagactcaga | 240 |
| ccaaagttgt | attgcctaac | tgcagtcatg | caatgtgttt | gaattgctat | cgggaatggc | 300 |
| atgcacgatc | agaatcatgc | cctttctgca | gggatagctt | gaaaagagtg | aactcaacag | 360 |
| acttgtggat | ttttacaagt | aatgaagaag | ttgttgacat | ggaaacattg | ggcagagaga | 420 |
| acttaaaaag | gctattttaat | tacattgata | aattgccact | tatagtgcca | gagagcctgt | 480 |
| tttatgttta | tgat | | | | | 494 |

<210> 2074
 <211> 1678
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <400> 2074 | | | | | | |
| ctttttcttc | cctgtcctgt | ttctctgtgc | tcacatcttt | taatatcaca | ccgaggctgg | 60 |

| | | | | | | |
|------------|-------------|-------------|-------------|-------------|------------|------|
| aattctgcc | ggagccgct | ctggtgctg | ctgacatttc | acctagaagt | cacaaaaact | 120 |
| ttgtagttac | cattttcgg | aagattttga | ggaaacacgc | gcagagggag | agagagagag | 180 |
| tggaagagag | agaatctagt | ctctggatgg | ggaggcattc | ttgctgttac | aagcagaagc | 240 |
| tcagaaaagg | cttatggtca | cctgaagagg | atgagaagct | tctgaggcat | atctctcagt | 300 |
| atggccatgg | ttgttggagc | tctgtcccaa | agcaagccgg | tctacagaga | tgcggaaga | 360 |
| gctgcagatt | gaggtggatt | aattacttga | ggcccattt | gaaaagaggg | gcgttctcgc | 420 |
| aagatgaaga | ggacctcatt | attgagctcc | acgctgctct | tgggaacaag | tggtcgcaga | 480 |
| ttgcagcaaa | cttgccctggc | agaactgaca | atgagataaa | gaacctgtgg | aattcttgcc | 540 |
| tgaagaaaaa | gctcaggcag | agaggcattg | accctgtgag | ccacaggcct | ctctctgagg | 600 |
| ttgagaatag | tgacgacaag | gacgcaacgt | cagggcagac | ccaagataag | gtctctcgtg | 660 |
| ggtcagttga | attgctgagc | cagctcaatc | cacaattctc | aagctccacg | acagcaagga | 720 |
| gcagtaaaaa | cagcaatttg | atggcaccaa | cattgagcaa | ggacacagtt | gcagatgggt | 780 |
| ttgtgagcaa | tcaccaagag | aactcgatga | tgaacagttg | catctcagac | tttgttgata | 840 |
| atttctctct | gcaacaattg | aactactcat | caagtgatct | cagattttct | aatctctgtt | 900 |
| tcacccaaac | gggcagagca | catggaaaac | ccatcttttc | cgacttcaat | tcgaatgtaa | 960 |
| tatctgccat | ttctcctccc | tcacttaact | ctttattccc | tactgcttca | atgggcttca | 1020 |
| acttcaagcc | atctaagtct | gtcccctcgg | cgaattcgac | ttcaagcgct | agcacaggaa | 1080 |
| ctgcagattt | tcacaacagt | ggctcctact | tcgggaacag | cttagtttcc | tggggattgt | 1140 |
| tagcagattg | tggtctgcc | gacaaggagg | ggctgacttc | gatccatcca | ttggaagtcc | 1200 |
| accaaccgg | agacttcaag | tggtctgccc | aatatctcca | gaacctctg | ttcatggcgg | 1260 |
| ccgcgctgca | gaaccaagcc | caggaacagt | ccaatttgta | caatcagata | aagccagaga | 1320 |
| cccagtttcc | tcagaccat | tcaactactt | ccatgtggga | tcacttacag | ggacatgaat | 1380 |
| ccttgacaa | ttctttgaat | acgtgcggca | aggatatcca | gagattaacg | gcgctactcg | 1440 |
| gacacaatta | gatagaggat | tatattagct | gatggagcct | cagctgttga | agcaggaggg | 1500 |
| gatcatttga | ttggtggcga | cttgagaatt | tgacagattgt | tatttggttac | aggtgtggac | 1560 |
| tataattttt | tttttttacc | ccttttcttc | tttcaatgta | catagtctctg | atacaaaaac | 1620 |
| tctgcatccc | cttgccctttt | acctatatatt | gctttaaagaa | aaaaaaaaaa | aaaaaaaaaa | 1678 |

<210> 2075

<211> 636

<212> DNA

<213> *Eucalyptus grandis*

<400> 2075

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| aaacagagag | agagagagat | catgagatac | ccagctccag | ctccagcttc | aaggggcaag | 60 |
| agcacgagca | cggcaacgcc | atgctgcagc | aaggtgggga | taaagagagg | cccgtggacg | 120 |
| ccggaggaag | acgaggtcct | cgccagctac | gtgaggaggg | aaggcgaggg | gcggtggcgg | 180 |
| accctcccga | agcgtgctgg | cctccagcgc | tgcggaaga | gctgccgcct | ccgctggatg | 240 |
| aactacctcc | gcccctccgt | caagagaggc | cagatcgctc | ccgatgagga | ggacctcatc | 300 |
| ctccgcctcc | accgcctcct | tggaaacagg | tggtctttga | tagctggaag | aatcccgggc | 360 |
| cgcaccgaca | acgagatcaa | gaactactgg | aacaccacc | tcagcaaaaa | gctcatcagc | 420 |
| caaggaattg | atccccggac | tcacaagcca | ttattgaacc | ataaccctag | ttcttacta | 480 |
| gcagccatt | tgcaagatac | ttataatgct | tcaacattca | caccgaaagc | aacttaccct | 540 |
| aatcctacag | taccagtgg | agaaaccggc | gacgaaaatg | atctgaaagt | gggcagacag | 600 |
| ccagctgggt | cagcctcaaa | acgcgggcgt | tgccaa | | | 636 |

<210> 2076

<211> 862

<212> DNA

<213> *Eucalyptus grandis*

<400> 2076

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| caaacgtctc | cgtttctctc | caagctgaac | atggacaaga | agccagacga | cgacagtggg | 60 |
| aagtcccaag | atgtcgagg | gagaaaagg | ccgtggacga | tggaagagga | tctcatcctc | 120 |
| atcaactaca | tagcgaatca | cggcgaaggc | agttggaaact | ccctagccaa | agctgctggg | 180 |
| ctaaaacgta | ccgggaagag | ttgtcggctc | cggtggctga | actatctgcg | acccgacgtc | 240 |
| cggagaggca | acatcactac | tgaggagcag | ctcctgatca | tggaactgca | tgccaagtgg | 300 |

| | | | | | | |
|-------------|-------------|------------|-------------|------------|-------------|-----|
| ggaaacaggt | ggtctaaaat | tgcaaagcat | cttcccggaa | ggactgacaa | tgagataaag | 360 |
| aacttctgga | ggactagaat | ccaaaagcac | atcaagcaag | cagaggcttt | ctctggtcag | 420 |
| agctccgaga | tgagtgatca | agcaagcaca | agccacatgt | ccagcatgcc | agagccgatg | 480 |
| gagacctacg | actcaccgcc | gtcattccaa | ggcaacaaca | acatggagcc | tttgccgggtg | 540 |
| aattttgtcgg | tcgagtcaaa | tgaagcctac | tggagcatgg | acgatctttg | gtctatgcag | 600 |
| ttactcaatg | gggattgatc | gcggggtgac | gtatgggtgca | gtaatcgaaa | tggttcgttt | 660 |
| acaataatag | ctagggtttgt | ttacataaaa | tggacattag | cttttatctc | acatatatat | 720 |
| ctacatacat | gtgctagttt | agaagttatc | tacaaatatg | tgcatgagtt | gtaaacgaaa | 780 |
| ctaccatctg | cagtttgcat | ccccgctatg | taatgactga | aataatgaag | cgagattatt | 840 |
| tggcttaaaa | aaaaaaaaaa | aa | | | | 862 |

<210> 2077

<211> 907

<212> DNA

<213> *Eucalyptus grandis*

<400> 2077

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|-----|
| gagatggaca | agaaaccgtg | ctaccgcacg | caggatcctc | aagtgagaaa | aggaccatgg | 60 |
| actcttgaag | aggatctgat | tctgatggac | tacatagcca | accatggcga | aggtgtatgg | 120 |
| aactctctag | ctaaagctgc | tggctctcaa | cgcaccggaa | agagctgccg | gctgcgatgg | 180 |
| ttgaattacc | tccgaccgga | tgtccggaga | ggtaatatca | ctcccgaaga | acagctcttg | 240 |
| atcatacacc | tgcaatccat | gtggggaaac | aggtgggtccg | aaatcgcgaa | gcatttgccg | 300 |
| gggaggaccg | acaatgaaat | aaagaactac | tggaggacca | agatccaaaa | gcacataatc | 360 |
| aagcaatcgg | aaactgagat | caacgatctc | actattcctc | catcatccgc | aaacgcatgc | 420 |
| acagatcatc | gcgggggtctc | ggccgcaaat | acaatcgaga | tcgcctgttc | tccaccgtcg | 480 |
| gatcaaggcg | gctccggcga | gactatgctc | tcggcccttc | ctcctgccca | agaaccgaac | 540 |
| gacagcgctt | gctggagcgt | ggaggatctc | tggcccatac | agtcactaat | tagcggcatg | 600 |
| ggtgatgatg | cccaatacta | ttccgttttag | gccttaatta | gattatagat | catgacctga | 660 |
| tgaacaaaac | aaaagcaatt | agaagaccca | aagggctcat | ttattgggtc | tttatgttga | 720 |
| agctagctag | gtagatcttg | tatgtataga | gaaaaggcca | cagcatatca | tatttcctat | 780 |
| gtgatgtgct | gtatacacta | ccatagcttt | gtgctaggta | tattagctag | cttgtagcag | 840 |
| tggcaacata | tctatcgaaa | taagaactta | gataatacag | cttttggtta | aaaaaaaaaa | 900 |
| aaaaaaa | | | | | | 907 |

<210> 2078

<211> 658

<212> DNA

<213> *Eucalyptus grandis*

<400> 2078

| | | | | | | |
|------------|------------|-------------|------------|------------|------------|-----|
| gggagacgtc | tccagctcga | gtcgtcatct | gggtccgcgt | cttctcttcc | cttcttccaa | 60 |
| tggtttgatc | ctaggacaga | gagagaaaga | gagagatata | ccgaaagaga | ggtacagaga | 120 |
| gatagaggga | gagggagagg | gagactcgtg | gcgctgtttc | gagctttcta | gcttccggag | 180 |
| gaggagggct | ggtgttgagc | gaaacttgga | gaggtcatga | attcgacaac | cactcagttt | 240 |
| gtgtcctcta | gaaggatggg | gatgtatgac | ccgattcacc | aaattggaat | gtgggacgag | 300 |
| aacttcaagc | agaatggaaa | tcctaattgcg | ccgccagctc | tgatcatacc | tatgcacgcg | 360 |
| aatttgaca | accagtcgga | ggatacttct | catggatcac | aggatactgc | tggcaagtat | 420 |
| gagcaagaaa | catcgaaacc | ttatgataag | gtgcaaagac | gtcttgccca | aaaccgtgag | 480 |
| gctgcgcgca | aaagccgtct | gcggaaaaag | gcttatgttc | agcagctaga | agcaagtcgt | 540 |
| ttgaagctta | tgcagttaga | acaagaggtt | gaccgagcta | ggcaacaggg | tgtgtacatg | 600 |
| gcttcaggag | tagattcagc | ttatccagga | tatggtggat | gtttaaattc | aggaatcg | 658 |

<210> 2079

<211> 373

<212> DNA

<213> *Eucalyptus grandis*

<400> 2079
gctcacttgg gtcgcctctc gttctctcgt ttctcgcctc cttcttcgaa gcagcagcca 60
gcacagtgcg gcaacgtgaa gaagataaaa agaagagtgt ggtcctgacg ggaggggggc 120
gtctctctag aaagactacg ttttttcctt tcgttaagaa atgagacagg ggtctttcta 180
gcttctgggt cttgaggagg agggccattt tcttcttgcc gattcgatag gttggcagcc 240
cgggatgatg gcggtgactt cggcctgtaa ggacaagatg gggatcgaca acgggaagta 300
tgtgcggtac acgcccagagc aggtcgaagc tctcgagagg ctgtatcacg agtgcccga 360
gccgagttca ctg 373

<210> 2080
<211> 421
<212> DNA
<213> Pinus radiata

<400> 2080
gttcacagacc ttttgcattc tcattattct tccgcctgtg aaaagatggg gagatctccg 60
tgctgtgaga aggtcatcac taacaaaggg gcctggacta aacaagaaga cgaccgcctt 120
atcgctcaca ttcgagccca cggcgaaggg ggctggcgtt cgcttcccaa ggccgcaggt 180
tgcttgcttg cgctctgctt tcttaactga attaatggct gcctgtaaat tttccgttta 240
aatataatgt ttcttgatgt ccgatataac gtttcttgat tttccgatat aatgtttctt 300
gattttccga tataatgatt ttcgattttc cgtttatata taatgtttct tgattttccg 360
attgcagggc tgctgagatg cggcaagagc tgcagactgc gatggataaa ctacctgcgt 420
c 421

<210> 2081
<211> 746
<212> DNA
<213> Pinus radiata

<400> 2081
gtttaattcg acgacacctt tgcctgttag aaaggcgagg gaggcttatc ggaagccaca 60
ccaaaccaa tcagaaataa tgggtagggc tccctgctgc gaaaagggtg ggctcaaaaa 120
ggggcccttg acgcccgaag aagatcagaa actcgttact tacatacagg agcatggcca 180
tggcagctgg agggctctgc cgcagaaagc tgggtgattat gaattttatat ttagttctag 240
aacttgcaag aaattctctg tatttttgtt ttttggttag ttttcatggg ttgagtttta 300
tgcaggggtg ctgagatgcg ggaagagctg cagattgcgt tgggctaact atctaaggcc 360
agatatcaag cgggggaagt tcaactgtgc ggaagagcag actattatc aacttcatgc 420
actacttga aacaggtggt ccgccattgc tactcacctt cccaagcgaa ccgacaacga 480
aatcaaaaac tactggaata cccacctgaa gaagcgcttg ctgcagatgg gaatcgaccc 540
cgtgacgcac aagcccaagt ccgaatcgat tatggtacct ggtgttcagt cgtccaatgg 600
gtcctcgaat ctgagccata tggcgcagtg ggagagcgcg cgcctggaag ccgaatcgag 660
gctggcgcgc gagtccaagc tcagggcaag gggcctctgg tctgccagtg tgagaaacgt 720
taatgcgagc tcggatttat tcagcc 746

<210> 2082
<211> 244
<212> DNA
<213> Pinus radiata

<400> 2082
gaagatatca agcaaatagt tacacaccaa gaaaatccac aatgggtaga tctccttgct 60
gcgcaaagga agggctcaac cgcggggcct ggacgaaaac ggaggatatt attctctccg 120
aatacattcg aattcatggc gatgggtggg ggagaagtct ccccaaaaaa gcagggttta 180
agcgggtgtg aaagagttgt agattacgtt ggttaacta tcttcgtccc gacattaaac 240
gcgg 244

<210> 2083

<211> 1151
<212> DNA
<213> Pinus radiata

<400> 2083

| | | | | | | |
|------------|-------------|------------|------------|------------|-------------|------|
| cttcaacagg | tttttgttct | gaaatcctgt | tatcacttcg | ctccatcttc | catttttgtt | 60 |
| ttctgacaac | cttttaaaaca | tgggaagggc | gccttgctgc | tctaacgatg | acagaaacaa | 120 |
| aggagcctgg | accaaagaag | aggatgacag | gcttatccaa | tatattaagg | ttcatggaga | 180 |
| gggttgctgg | cgctctctcc | ccaaggccgc | aggtctgctt | cggtgtggca | aaagttgcag | 240 |
| actgagatgg | ataaattatc | ttcgccctga | tctcaaacga | gggtttttct | ccgaagacga | 300 |
| agatgatctt | attctcaaac | tgcacgccct | ccttggaat | aacaggtggt | ctttgatagc | 360 |
| tggccgtttg | ccaggacgaa | cagataacga | gataaagaac | tactggaact | cgcatctgaa | 420 |
| gcgaaaactt | atcagcatgg | gaatagaccc | cctaaccct | cgctcttttc | aaaagacttc | 480 |
| tcaccatcat | ccctctcttc | cacagaatgt | tagagaggct | gaaacaacac | cttcattgg | 540 |
| gattgttcaa | gatttctttc | gttgcccgtc | tgaacttagc | accaaaccg | agcaaatttc | 600 |
| agatgctgca | agcggactcg | cgcaggatga | gcaacccac | ccgaacctga | acctgaacct | 660 |
| ggagctctca | atagctcgct | cctcagtcca | tcgagtagca | gagaaggagg | acgttggttaa | 720 |
| ttcccagcaa | ggcgaaagca | atctgagtga | gggaaagtga | tatttatgtc | attatggaga | 780 |
| ctgccctccc | cctccaatgc | aacaatgaga | tgatataaat | gtccctttcc | cgctcaccaa | 840 |
| agccctacgg | ggcaataacg | aatacatgaa | aaccgtttgg | ctcatagcaa | gtctagtttt | 900 |
| caacacttac | tattatttaa | ggaacgtaaa | aagtgtccag | ttcaattgat | gtattttgtg | 960 |
| acattttgct | ttgttagtca | cttacacatg | ctacaagttt | tggtggtcag | tcacctcaca | 1020 |
| cttttggtgt | gaaaaatggc | ttcaaggctt | cctttgtatg | gataccagtt | gcattggcaa | 1080 |
| tatgtaaaaa | tgcgacatgt | aatgttttct | aatggcaaag | tatatatttt | aaaaaaaaaa | 1140 |
| aaaaaaaaaa | a | | | | | 1151 |

<210> 2084
<211> 372
<212> DNA
<213> Pinus radiata

<400> 2084

| | | | | | | |
|-------------|------------|------------|-------------|------------|------------|-----|
| tttttgttct | gcaatcctgt | tatcacttcg | ctccatcttc | catttttgtt | ttctgacaac | 60 |
| cttttaaaaca | tgggaagggc | gccttgctgc | tctaacgggtg | acagaaacaa | aggagcctgg | 120 |
| accaaagaag | aggatgacag | gcttatccaa | tatattaagg | ttcatggaga | gggttgctgg | 180 |
| cgctctctcc | ccaatgccgc | aggtctgctt | cggtgtggca | aaagttgcag | actgagatgg | 240 |
| ataaattatc | tttgccctga | tctcaaacga | gggtttttct | ccgaagacga | agatgatctt | 300 |
| attctcaaac | tgcacgccct | ccttggaat | aagtggctctt | tgatagctgg | ccgtttgcca | 360 |
| ggacgaacag | at | | | | | 372 |

<210> 2085
<211> 1285
<212> DNA
<213> Pinus radiata

<400> 2085

| | | | | | | |
|-------------|------------|-------------|------------|------------|------------|-----|
| gggctgagag | aaaagtattt | tccttgggct | gaagagatca | ggctaattat | ggggcggaca | 60 |
| ccttgttgtg | aaaaaaatat | tgggctgaag | aaggggccat | ggacacctga | ggaggatcaa | 120 |
| aagctgatag | attacataca | aagccatggc | catggtagct | ggcgtgccct | tcctaaacga | 180 |
| gcagggtctt | tgagatgtgg | aaaaagtgtg | aggctgagat | ggaccaacta | tttaagacct | 240 |
| gatataaaaac | gtggacagtt | ttcatttgag | gaagagcaga | ctataattga | actccatgct | 300 |
| gttcttggaa | acaagtggtc | tactatagct | gggcatctgc | ctgggaggac | tgacaatgaa | 360 |
| ataaaaaatt | actggaacac | ccatttgaag | aaacgccttc | ttcagatggg | aattgatcct | 420 |
| gtgacacaca | ggccaagaac | agacctcttg | gctttttcca | atatccaatc | ttcaattttt | 480 |
| aatacacctg | gttttggtca | tatggcccaa | tgggagagcg | ccagacttga | agcagaagct | 540 |
| cggctgacgg | gagagtattt | gagacaagcc | ttattcatgg | caggcaacgg | atcagccaca | 600 |
| gctgatctat | tgatgaggcc | gtgcaaattcc | gaatttggca | atgatcagtt | taatttgaca | 660 |

| | | | | | | |
|------------|------------|------------|------------|------------|-------------|------|
| aaaaatatgg | gcaaccacc | atggatacag | cagcctggaa | tggccttaga | ctataagggg | 720 |
| gccgtacctc | agagtttggg | gcagttttta | cagacaaatg | tatgttctgc | atcagacatt | 780 |
| aatgggggtg | gttgtttgag | ccatgaagg | ggcttcaata | ttacgaagtt | tgcattctcca | 840 |
| tgttcaactc | tggatggaat | tcaaatacaa | acagaacctc | agagtctgtg | tggctctcaa | 900 |
| gtagtgaaaa | atgatagtca | gtttcttcat | agtgaaggag | atctacgaaa | acaagccatg | 960 |
| cttgatatga | atgtaggatg | taatgttctc | attaacatga | atgctgaatc | caaggtttca | 1020 |
| tttggtcaca | atggtattat | aactgaccaa | gaatacaata | atttgggtca | aatagataat | 1080 |
| aataaccatc | tttctcatgc | agctactaca | ctatggcctg | ttgaaggcca | gttgcaggcc | 1140 |
| atagccagtg | cctccatgcc | tggattgata | tcttccacca | gctgcacttc | aaacaacatt | 1200 |
| tacagccagc | ctggtttaat | tcctcttctc | aattccacaa | cctcttcaat | gggtgataca | 1260 |
| aattcttaca | gagaagcgca | gccag | | | | 1285 |

<210> 2086

<211> 1218

<212> DNA

<213> Pinus radiata

<400> 2086

| | | | | | | |
|------------|------------|-------------|------------|------------|-------------|------|
| cgcagatcgg | gactgcaaac | agaaccatag | ttctgcaaca | ttcaatggga | cggactcctt | 60 |
| gttgtctgaa | agtgggactc | aatcgagggtc | cctggacacc | cgaggaggat | ctttgcctct | 120 |
| caaattacat | cgaagctcac | ggagaaggcg | ggtggagaac | acttccaaag | aaagcagggtc | 180 |
| tgtctcgatg | cggaagagt | tgcagattgc | gttggatgaa | ttatctccga | cccgatgtga | 240 |
| aacacgggca | catattaccc | gaggaggaag | atttaatact | caggttgcat | cgtcttcttg | 300 |
| gaaacaggtg | gtctttgatc | gctggacgta | tgcccggcag | aacggataat | gaggtcaaga | 360 |
| actattggaa | taccacctc | agcaaaaagc | ttatcagtc | gggtatcgac | ccgcggacgc | 420 |
| acaaaccgtt | gtcagaatcc | gaagacatat | gttcgagtc | cggaatagc | gaagtgaagc | 480 |
| gcaagtctca | acgggaaaat | aacgctgaaa | taccaagaaa | agttgccgat | ggcgcagttg | 540 |
| atattcaaga | taaggaagag | gatatcacag | aagatcagac | atctgctcaa | ttgcctgaga | 600 |
| atcagcttct | tgaacaagc | aattctcaat | gcccgtctgt | cgctactgat | ttcgtgcctc | 660 |
| aggctccctc | gataccttcc | acggcttatt | catttcaaca | gagcacaact | tcaagtgttc | 720 |
| ccggaggcgt | gtcggattca | gttgatgtta | atcataataa | gggaagtaag | caagttcctt | 780 |
| ttcctctctc | aaatactgca | tgttttaata | gttcggcaca | aggggtagct | ggtgactatc | 840 |
| tcgaccaata | tttgatgaag | aatcttggtta | ctaacagcaa | tgatctgata | acatccactg | 900 |
| tgagattaag | ctccgcttta | caaactgcac | cttttgtggg | acaattcgat | tcaaatcatg | 960 |
| tttttatgtc | aggcaatgca | tcgctcaatg | aaaaacatca | gatgcctcag | aactcacaag | 1020 |
| ctttggaaat | ggatccccac | cattctttca | tagegcaccc | ttctgaggag | ggcacctatg | 1080 |
| ataaattgaa | ccatacaagg | tgtgcagctt | ctgatcaggt | cacatcattc | aattatccat | 1140 |
| atcttatttc | tcataccgtt | acgggctcag | cccttggggg | ttttaatccg | gatattcttc | 1200 |
| ctccttttgt | ggaatctt | | | | | 1218 |

<210> 2087

<211> 473

<212> DNA

<213> Pinus radiata

<400> 2087

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| gaccttttgc | atcttctatta | ttcttccgcc | tgtgaaaaga | tggggagatc | tccgtgctgt | 60 |
| gagaaggctc | atactaacia | aggggcctgg | actaaacaag | aagacgaccg | ccttatcgct | 120 |
| cacattcgag | cccacggcga | agggggctgg | cgttcgcttc | ccaaggccgc | agggtgctg | 180 |
| agatgcggca | agagctgcag | actgcgatgg | ataaactacc | tgcgtcccga | tctgaagcgt | 240 |
| ggaagcttca | ccgaagaaga | agacgagctc | atcatcaaac | tccactcctt | cgttggcaac | 300 |
| aagtggctct | taattgcagg | gagattgccc | ggacggacgg | acaacgagat | aaagaactac | 360 |
| tggaacacac | acatcaaaaag | aaaattgctg | agcaaggggac | tcgaccccca | aaccatcgt | 420 |
| ccactcggcc | agccaaacaa | tacccccgtc | actcggcctg | ttctcgagca | cga | 473 |

<210> 2088

<211> 1150

<212> DNA
<213> Pinus radiata

<400> 2088

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| aaacttgctc | acggattccg | acccttcctg | ctaaagctgc | tgcatttctg | tgtgtattga | 60 |
| agatggggag | atctccctgc | tgtgaaaaag | ctcatacaaa | caaaggggag | tggaccaaag | 120 |
| aagaggacga | tcgcctcatc | gccacatttc | gaactcacgg | cgaagggtgc | tggcgctcgc | 180 |
| ttcccaaggc | cgcagggtcg | atgcgctcgc | ggaagagctg | caggctccga | tggataaact | 240 |
| acctgcgtcc | tgatctgaag | cgtggaaact | tctcagaaga | agaagacgaa | ctcgtcatca | 300 |
| aactccactc | cctactcggc | aacaagtggg | ctcttattgc | aggcagattg | ccggggcgga | 360 |
| cggacaacga | gataaagaac | tactggaata | ctcacatcaa | gagaaaattg | ctaaacaggg | 420 |
| gactcgaccc | ccagtcctcat | cgccccctcg | gccagccgca | caacagcaac | acgacctgcc | 480 |
| cctctctgcc | cgccctcgag | cacgaaattc | ttgtgttcca | gaggccaaga | acgccggaga | 540 |
| tagcagattt | ctttcaatac | gagcgctctg | aaagctcgcc | gatggaaccg | gccacttcta | 600 |
| aagacgcgga | agagcatccc | gacctcaatc | ttgatttctg | tatcagcttg | ccagttcatt | 660 |
| cgccccccgc | cacgagcaga | gcttcgagcg | tcgatggaac | cgtggattca | aaacctaat | 720 |
| cggtttcttg | tcacatgggg | ttgcaagtaa | attatggtgt | gcaatgtgag | aacagatatt | 780 |
| gtgaagagag | tgcttccggt | gtctcgagtt | tttacacgct | cgtcttatag | aagatttgag | 840 |
| ctttatgggt | tgcttattaa | caccactaag | cattcatctg | atgaataggc | agagtgaac | 900 |
| tatatgtttg | ctcattgtgg | cagcccggag | tttgagttta | atagacaggg | acgcagctgg | 960 |
| acagcagtta | cccaaattat | tgtttaaaga | gtgtagatag | ctcacctatg | aacataggaa | 1020 |
| tcgctgtttc | accatggcgc | tctgtaatat | ttaaagcgat | tcatatggaa | gcttgagcgc | 1080 |
| gaagtctcca | gtgccgtatc | atcaactaat | gtaattgaac | tgcaattggg | cacaaaaaaa | 1140 |
| aaaaaaaaaa | | | | | | 1150 |

<210> 2089
<211> 723
<212> DNA
<213> Pinus radiata

<400> 2089

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| gtttgtcttc | cccttcattc | gcaattgctt | gcttggtgtg | ctgagagggg | aggaggacga | 60 |
| ggaggaggaa | acagagcaac | aagcagcccg | acagacacac | atctcaacag | gtggatcttt | 120 |
| ctcgcccgcc | attctatcag | gtgtattatt | gtgcaacata | tagctgaaat | atggtttggg | 180 |
| ggatcttgta | gtaggagcat | acgatcaatt | ttaggaacca | aggctcattt | taactatggg | 240 |
| tacaggagag | atggggacac | cagcgaaaac | aactaaggca | tccacaccac | aggaaacagc | 300 |
| tccaacaagc | actgccatgc | tttatcctga | ctgggctgca | gcattccagg | cttattataa | 360 |
| ctctggaacc | acaccaccac | ctcctcctgc | gtactttcat | tcaagcgttg | catctagtec | 420 |
| acagcctcat | ccatatatgt | ggggggggca | gcctctaatt | cctccatatg | gaactcttcc | 480 |
| tcccccatat | gcggcaatgt | atcatcatgg | cagcatgtat | gctcatccat | ccatgcctcc | 540 |
| gggtgcacat | ccatttgctc | cttatgtgat | gacatcgctg | ttaagtacaa | ctgaagggtg | 600 |
| acctgtaggc | acaacttctg | gtgcagatgc | agaaggaaag | ccatctgaac | caaaggacca | 660 |
| aactctattg | aagagggtcca | aaggaagctt | aggcagctct | aatatgctta | ctggcaagat | 720 |
| tac | | | | | | 723 |

<210> 2090
<211> 768
<212> DNA
<213> Pinus radiata

<400> 2090

| | | | | | | |
|------------|-------------|------------|-------------|------------|------------|-----|
| gtttgactga | agggtttagag | ttcgattccc | acaggtaaca | gaggccacga | aggtttcaag | 60 |
| ttcgattccc | acaggtcaca | gaggccacga | aggtttcaag | ttcgattccc | acagttcaca | 120 |
| gagccaacga | agggtttcaag | ttcgattcca | ctaggtccag | gaggagcaaa | gaagatcggt | 180 |
| gggtcgaatg | gggtgcaacc | agtcgaaagt | cgagagcgag | gaagagggtg | tgaagtcaaa | 240 |
| ggagaggaaa | caatttatga | aggagtcagt | ggcgcccgcg | aatgctttcg | ccgccgctca | 300 |
| ttcggcgtcc | ataacgtcgc | tcaagaacat | tggggcccgcg | ttgaacgact | acgggcaggg | 360 |

<400> 2094
 gggcaagggg aaagacacag atgagaaaga tcgagagcgc gaccagcagg caggttacgt 60
 tttctaagcg cagaaatgga ttgatgaaga aagcttacga gctgtcgggtg ctctgcgatg 120
 cccaactggg actgattgtt ttctcccca gaggaagggt ctatgaattc tccagtacct 180
 gcatgcagaa aatggttgga cgatacgaaa aatgttcaga aggaagtgc acgagtacat 240
 caaaagagca agatgtccag tgtttaaaac gagaaagtgc gaatatggaa gaaaggattg 300
 aaattcttga atccatgcaa agaaagatgt tgggcgagga gctggcatca tgtgcattga 360
 aggatttgaa tcagttggag agccagggtg aacgagggtt gaga 404

<210> 2095
 <211> 584
 <212> DNA
 <213> Pinus radiata

<400> 2095
 tcgcagcgta aagcgttcat ggggtgccggg cgggtaactc ttgaaaaata ttagattcga 60
 ctccctgacc ctgggaggag gaagaagaag aagaacagca ggaggaagcg aaaatttctt 120
 aatagtaacc agagaatagc agcgggtgaa gaagcagagg gatcttgcaa tggggcgggg 180
 tcgggttcag ctgaggcgaa tagaaaacaa aataaatcga caagtcacgt tttcgaagcg 240
 ccggaacgga ctgctgaaga aggcgtacga gctatcagtg ctgtgcgatg ccgaagtggc 300
 gctaataatt ttctctacca gaggaagct ttacgagttt gccagttcca gcatgaacaa 360
 gacgttgga agatacgaaa aatgttcata tgcaatgcaa gataccacag gcgtttcggg 420
 ccgggaagca cagaattggc accaagaagt taaaaagtg aagggttaagg ttgagctcct 480
 gcagcgatca caaaggcatt tgttggggga agatctgggt ccgttaaattg ttaaggagct 540
 acagcagctt gaacgtcagc tggaggttgc tctgacacat ctta 584

<210> 2096
 <211> 453
 <212> DNA
 <213> Pinus radiata

<400> 2096
 ctcttgctg ttctcgaaat cggccaaaat gggaaagaag aggggtggagc tgaaacgcat 60
 tcaaaaccct agcagtcgac atgctacttt ctctaaacgc aagaatggat tgctaaaaaa 120
 ggcgttcgag ctttctgtcc tctgtgatgc tgaagtcgct ctcatcattt tctctgaaac 180
 tggcaagatt tacgaatttg cgagcaataa cgatatggca gcaattcttg gaaaataccg 240
 agtacacgaa gaaggcactg aaacgtccag tccaacatcg cttcaaaacg taaagtatca 300
 tgaatcaggg cttgagaaat tgcaagagaa gttgaccgct ttgcaaaaga aggaaaagaa 360
 cttgattggg gaagacttgg aggtattaac aatgaaagaa ctgcaacggc ttgaaaaaca 420
 gttacaaatt ggcataaaaa ggtagtgat aga 453

<210> 2097
 <211> 509
 <212> DNA
 <213> Pinus radiata

<400> 2097
 gcaaccggag ctttaagact agaatatata tgtagccctc gggctctgac gaatactgaa 60
 actagagata cccacctctt atctgggtgtg taaggcacgc aaaatgggaa agaagaagg 120
 ggaggtgaaa ctcatcctaaa accctaccag tcgccaagga tgtttctaca accgcaagt 180
 cggtttgctt aaaaaagcgt ttgagctttc tgttctctgt gatgctgaag ttgcccttat 240
 aatcttctcc caaaccggca agatttacga gtttgcaagc catgacgacg tcaacgcaat 300
 tctcgcaaaa taccggatac aaacgggaac aacaacaaac gcgatgcctt cctcgcttca 360
 aaacaccgag ccggagacgt tgcattgagga gacaaatatg ttgggaaaaa ggaaaaaagt 420
 ggagaagttg catgagaaga tcaatatgtt ggaaaaaaga ggaaaaaaca tgggttggtga 480
 aaatttgag tcattaacgg tcaatgaat 509

<210> 2098
<211> 430
<212> DNA
<213> Pinus radiata

<400> 2098
gtttgtgtgcg gttctccgtt ccgcggtgtt gattgattaa ttaaagagca agagtgcga 60
aaggagtctg gagaatggca agaggaaaga cccagatgaa gaagattgag aacgtgacca 120
gcagacaggt cacgttttct aagcgaagaa atgggtgtgt gaagaaggct ttcgagctct 180
cgggtgctgtg cgatgcagaa gtgggactta ttgtattctc cccaagtggg aagctctatg 240
aattttcgcg tccctgtatg ggaaaattgt tggagaagta tgaaaagaat tcacgagaaa 300
gtggtataaa taatgcggct aaagagaaaag atactcagca ttcaaacgc gaaattgcaa 360
atatggaaga gaaaattagg atcctcgaat caacagaaag aaagatgttg gggcaaatc 420
tagcatcatg 430

<210> 2099
<211> 513
<212> DNA
<213> Pinus radiata

<400> 2099
tttcaatgcc cctcttttct cagtggacga gtgttcaatt ttcctgtgt tgatctgata 60
cctataaatc tgatggattc ttttgaggca aagggaaagg gagagaagag gagaacgggtg 120
aggggaaaaa cccagatgaa gaggattgag aacgcgacca gcaggcaggt tacttttct 180
aaacgtagga acggtctcct gaagaaagct tacgagctct cgggtgcttg tgatgccgaa 240
gtggcactta tggttttctc cccaagaggg aagctctatg agttcgcaa tcccagcatg 300
cagaaaatgt tggaacgata cgagaagtgt tcggaaggaa gtaaaacaac aagtatagca 360
aaagaggaag atcccaaggc tttaaaacga gaaattgcga atatggaaga aaggattgag 420
attcttgaac gcacgcaaag aaagatgttg ggcgaggaac tggcatcatg tgcattgaag 480
gatttaaate agttggagag ccaggttgaa cga 513

<210> 2100
<211> 526
<212> DNA
<213> Pinus radiata

<400> 2100
ggattcttgt attttttgtgt gttgctgctg caacagttct taaataccaa gacattgatg 60
agagcttgag taatatctct gcaaaaaccc aagtaaacc tgaagctagt ccaactagt 120
ggaaggaacc tcggctattc tgtaagttca ctacagattt gagaaactct tgggattttg 180
ctcaaaatgg ggcgtggtta aatagagatc aagaagatcg agaacagcgt gcacaggcag 240
gtgaccttct gcaagcgccg aggcggtctg atgaagaaag cctacgagct ttcagtgtctg 300
tgcatgagc atgtagcgt cattgttttc tcgagccgag gaaagttgta cgagctgggc 360
accagcaaca acaacaaca cagtatgagg tcaatatttg aaagatatca aaagtgttca 420
cagacggcaa aacatatgaa cttttcgaat aatacttcag acgagaaaat gaagcaagaa 480
ataaatttac ttaacaaca aattggatca gctaaactta ctaaca 526

<210> 2101
<211> 295
<212> DNA
<213> Pinus radiata

<400> 2101
cctcttgga ggcaaatcct tgtactgttc catcctcacg aattggagg tttggagggtg 60
gccaggtcat cctccatta gccatactg tggaacatga agagttttg gaggttatca 120
agttggagaa tcatggcctg acacaggaag aagctttgtc atcgaggat atgtttctgt 180

| | | | | | | |
|------------|-------------|------------|------------|------------|------------|-----|
| tgcagctttg | tagtgggctc | gatgaaaatg | cagttggggc | ctgtgctgaa | cttgtctttg | 240 |
| ctccaattga | tgcacacctta | gctgacagtt | ctcctttgct | cccttctggt | ttcag | 295 |

<210> 2102
 <211> 296
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2102 | | | | | | |
| ggagaatcat | ggcctgacac | aggaagaagc | tttgctatcg | agggatatgt | ttctgttgca | 60 |
| ggtatcgat | cgacgtgttt | ctattgctta | gcagagaaac | ttgaagtgt | aaattttaat | 120 |
| ttttactaat | tcatttgaat | tgatgatctt | gccattttga | ttggacagct | ttgtagtggg | 180 |
| ctcgatgaaa | atgcagttgg | ggcctgtgct | gaacttgtct | ttgctccaat | tgatgcaccc | 240 |
| ttagctgaca | gttctccttt | gctcccttct | ggtttcagag | tcattccttt | agactc | 296 |

<210> 2103
 <211> 475
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|-------------|------------|-------------|-------------|-----|
| <400> 2103 | | | | | | |
| gaagtgtgga | tggtcttact | gctttctcaa | ctggaaatgg | aggaacaatt | gagcttttat | 60 |
| acatgcagat | gtatgcgcca | actacttttag | cttctgcccc | agatttcttg | actcttagat | 120 |
| acacttctgt | attggaagat | ggtagtcttg | tggtttgcga | gagatccttg | agtggaaactc | 180 |
| agggaggtcc | cagcatgccc | gcggtgcagc | agtttgttag | agcagaaatg | caaccagtg | 240 |
| gatatttgat | tcggccatgc | gaaggtggag | gttctctaat | tcataattgtt | gaccatatgg | 300 |
| atttgagacc | atggagtggt | cctgaagtgc | tacgtccact | gtatgaatca | tccactgtac | 360 |
| ttgccccaaa | ggttacaatg | tcggccttac | gccatttgcg | tcaaatagca | caagaggcat | 420 |
| cttctgatgt | ggtccttggc | tggggaagac | aaccgcgtgc | attacggaca | tttag | 475 |

<210> 2104
 <211> 1612
 <212> DNA
 <213> Eucalyptus grandis

| | | | | | | |
|------------|-------------|------------|-------------|-------------|-------------|------|
| <400> 2104 | | | | | | |
| cccattctcc | ttcaaaaaac | gacgcggggc | acgacgacga | ccccccacca | ccaccaccac | 60 |
| catcgacgac | tcggcacagc | acgcgaacca | gtcgcggaag | gttcgagaag | gaattcgacg | 120 |
| ctcggaatc | ggccgggaga | agaggaggaa | gacgacgaat | cggagcctta | tggtgtccgt | 180 |
| gaaccggaac | ccggcgcaag | ggttttactt | cttcgatccc | gcgaacacga | ggatccacgg | 240 |
| tgtcaacgcc | ggctcggcgg | ccgagggcgg | cggcgccgcg | ccgccgtacg | cggaggaccc | 300 |
| gagcaagaag | gtgcggaagc | cgtacaccat | caccaagtcc | agggagagct | ggaccgagca | 360 |
| ggagcacgac | aagttccttg | aggcgcttca | cctgtttgat | cgtgattgga | agaagattga | 420 |
| agcttttggt | ggatcaaaaa | cagttattca | gattcgtagc | catgcacaaa | agtactttct | 480 |
| aaaggttcag | aagaatggga | caagtgaaca | tgtaccacca | ccacggccaa | aaaggaaagc | 540 |
| tgcccatcca | taccacaga | aagcacctaa | agctccagtt | gtttcccaag | tcaatgggccc | 600 |
| atttcaagtt | tcattctgctt | ttttggaacc | cgggcataatt | gtcagacctg | atggatcagc | 660 |
| attgcttggg | aattcccgtg | caagtgtagc | cttgtcttca | tggagtcata | actctgtacc | 720 |
| cgcaatgagt | gcatacacag | ggacaaaaga | tgtaggaatt | tctggcccac | cagttccaag | 780 |
| taattgttgc | aacagcagta | gtaatgacag | tacaccgagg | tcctggccaa | atgctcaagc | 840 |
| aattgaacct | ttggatcaac | agaaacatct | tagagttatg | ccagatttctg | cgcaagtata | 900 |
| taggttcatt | ggcagcgttt | ttgaccggga | tgctgggtgg | catctacaga | gattgaagca | 960 |
| gatggaccct | ataaatttgg | aaacggtagt | gctcttgatg | aaaaatctca | gcgcaaatct | 1020 |
| gacaagcccc | gaattcgaga | aatatcagca | cggcttggtt | gcttcatatg | aggggtggtcc | 1080 |
| tgagaagtcc | aaatctggcg | gttccttcaa | gttgctcccc | gaaaaatctg | gaagcctaata | 1140 |
| tctgtctgcg | taacttgtga | ctttaacaaa | ctcgacctct | tcgagtcggg | catcgctcggg | 1200 |
| gaaaactgca | ctgtctttga | agatcaagat | tagtagtgga | gaataaagat | gccaaaggatc | 1260 |

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|------|
| gccaagctgt | ggggatcgca | aaactgggtcc | gtaactgagg | tctgggcttg | tggtttttgt | 1320 |
| aggtctgtaa | atatacctgtg | aaatgggaac | acggcagttt | gtgcgaacaa | tgctgagaga | 1380 |
| catcatcgga | agtttaggct | ttgtataggt | tcttatcgga | ctttgtatat | ggctgcgaga | 1440 |
| tacagagatg | tcgtgcgacc | tagaataaag | cttaggcgtc | gggtctgttg | tgtttatgta | 1500 |
| tatgtgcgcg | tgtaagatcg | aagaagagga | agtagcgagg | aacgtttgat | caggttgtgg | 1560 |
| tttttggtag | actatatgtc | attggctgct | ttctctcaaa | aaaaaaaaaa | aa | 1612 |

<210> 2105
 <211> 1576
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|-------------|-------------|------------|------------|-------------|------------|------|
| <400> 2105 | | | | | | |
| gaccttttgc | atcttcatta | ttcttcgcc | tgtgaaaaga | tggggagatc | tccgtgctgt | 60 |
| gagaaggctc | atactaacia | aggggcctgg | actaaacaag | aagacgaccg | ccttatcgct | 120 |
| cacattcgag | cccacggcga | agggggctgg | cgttcgcttc | ccaaggccgc | agggctgctg | 180 |
| agatgcgga | agagctgcag | actgcatgg | ataaactacc | tgcgtcccga | tctgaagcgt | 240 |
| ggaagcttca | ccgaagaaga | agacgagctc | atcatcaaac | tccactcctt | cggtggcaac | 300 |
| aagtggctct | taattgcagg | gagattgccc | ggacggacgg | acaacgagat | aaagaactac | 360 |
| tggaacacac | acatcaaaaag | aaaattgctg | agcaaggagc | tcgacccccca | aacccatcgt | 420 |
| ccactcggcc | agccaaacia | tacccccgtc | actcggcctg | ttctcgagca | cgaaattccg | 480 |
| gcattccaga | accctgcaac | gccggagata | gcagacttgt | tacagcacca | ccgattggaa | 540 |
| agctcgcta | tcaaacgggc | agcttcggat | gcggaagagc | atcccgcact | caatctgaat | 600 |
| ttgtgtatca | gtttgccgtc | taattcggcc | ccggccgtaa | acagagtatc | gagcgtcgat | 660 |
| acaacagtag | attcaaatc | taattctggc | gacgggctgt | gctggcagtt | tctctgacgg | 720 |
| aggtcgtttc | aataagaggg | tgtgcattat | cgcagcacga | ccacgcttat | gaccagtgcc | 780 |
| aaaggcacaa | ggactcgtgg | tggaagatg | tttatagtgc | aaagatctcc | gacttgctta | 840 |
| tcgtggaatt | gaaataatgt | ggtggagggc | gcagagacgg | tgggaaaaag | gttttgtgtg | 900 |
| ttgcaggctc | ggagatatgg | tggggaagtg | tatggataat | aggtatttct | ataatctgca | 960 |
| attctgggtg | aattattcac | aacagtttag | atttatcaag | gaaaaatata | cttcgttttg | 1020 |
| tggtctcagt | cgtaggagat | ataccagtac | cagtacatta | tctgcttgca | gggtaagtgt | 1080 |
| aagttcatta | cattgcaatg | ccggtgcctt | atcgccctca | tggccgtatt | tttaaagaca | 1140 |
| aatcccacgc | tgcttcagcc | tgcaacaaga | tatctttact | ctcattacac | tgatacatat | 1200 |
| cactgggtcaa | aacttcccat | cactgtcata | ggctggaaca | gagaaactga | agcctgttca | 1260 |
| aaattttcaa | tactttttaga | tctggtaaag | aagccaatgt | gagaactgca | aatttcattg | 1320 |
| gggcaaaaact | caggtgtact | gtcaaagcat | gaaagtccag | aatttgatgg | tgggatattc | 1380 |
| aacatacggc | agaggtaccc | ccaatgatgt | agaaagtatt | gggctgggtg | cctattacca | 1440 |
| cttgcatggg | tgtaggaaaa | agtgtagtgc | tattgcagga | gtgtaataaa | tgaggtagat | 1500 |
| atttttctcc | ccgattgatg | ttcaatatag | actcagcgac | gttttatgtg | tgttgaaaaa | 1560 |
| aaaaaaaaaa | aaaaaa | | | | | 1576 |

<210> 2106
 <211> 210
 <212> DNA
 <213> Pinus radiata

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 2106 | | | | | | |
| ctatgctatt | acagaatgtg | cctccagcac | tacttgctcg | cttcttgctg | gaacatcgct | 60 |
| cagagtgggc | tgattgtaac | attgatgctt | attcttcagc | taccatgaaa | gcaaatgctt | 120 |
| acaatgttcc | aggttcactg | ggaggcatta | cagggagtca | agttatcctt | ccactggcac | 180 |
| atactgtgga | acatgaagag | ttcttggaag | | | | 210 |

<210> 2107
 <211> 27
 <212> PRT
 <213> Pinus radiata

<400> 2107
 Met Lys His His Val Val His Asn Cys Cys Ser Lys Lys Ala Val Lys
 1 5 10 15
 Arg Gly Phe Trp Ser Pro Glu Glu Asp Leu Lys
 20 25

<210> 2108
 <211> 126
 <212> PRT
 <213> Eucalyptus grandis

<400> 2108
 Gly Ile Ser Arg Asn Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala
 1 5 10 15
 Ser His Ala Gln Lys Tyr Phe Leu Arg Arg Thr Asn Gln Asn Arg Arg
 20 25 30
 Arg Arg Arg Ser Ser Leu Phe Asp Ile Thr Thr Asp Ser Tyr Phe Gly
 35 40 45
 Val Ser Ser Ser Thr Met Glu Glu Gly His His Gln Ala His Gln Val
 50 55 60
 Pro Ser Phe Pro Leu Ser Leu Pro Pro Ala Val Ser Pro Gly Thr Gly
 65 70 75 80
 Glu Lys Leu Leu Glu Ser Leu Arg Leu Arg Lys Glu Gly Cys Gln Ser
 85 90 95
 Lys Pro Thr Pro Ser Lys Pro Ile Arg Pro Val Pro Ile Leu Pro Ile
 100 105 110
 Pro Pro Ser Ser Lys Met Ala Ala Leu Asp Leu Asn Lys Ala
 115 120 125

<210> 2109
 <211> 130
 <212> PRT
 <213> Eucalyptus grandis

<400> 2109
 Met Pro Gly Phe Thr Arg Ala Arg Lys Met Ser Met Ser Gly Glu Glu
 1 5 10 15
 Glu Gly Asp Leu Arg Arg Gly Pro Trp Thr Arg Glu Glu Asp Asn Leu
 20 25 30
 Leu Ile His Ser Ile Thr Cys His Gly Glu Gly Arg Trp Asn Met Leu
 35 40 45
 Ala Lys Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg
 50 55 60
 Trp Leu Asn Tyr Leu Arg Pro Asp Ile Lys Arg Gly Asn Leu Thr Pro
 65 70 75 80
 Gln Glu Gln Leu Met Ile Leu Glu Leu His His Lys Trp Gly Asn Arg
 85 90 95
 Trp Ser Lys Ile Ala Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu Ile
 100 105 110
 Lys Asn Tyr Trp Arg Thr Arg Val Gln Lys Gln Ala Arg Gln Leu Asn
 115 120 125
 Ile Glu
 130

<210> 2110
 <211> 146
 <212> PRT

<213> Eucalyptus grandis

<400> 2110

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Cys | Asp | Lys | Val | Gly | Leu | Lys | Lys | Gly | Pro | Trp | Thr | Pro | Glu | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Gln | Lys | Leu | Leu | Ala | Tyr | Ile | Glu | Glu | Asn | Gly | His | Gly | Ser | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ala | Leu | Pro | Ser | Lys | Ala | Gly | Leu | Gln | Arg | Cys | Gly | Lys | Ser | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Leu | Arg | Trp | Thr | Asn | Tyr | Leu | Arg | Pro | Asp | Ile | Lys | Arg | Gly | Lys |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Phe | Ser | Leu | Gln | Glu | Glu | Gln | Thr | Ile | Ile | Gln | Leu | His | Ala | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Asn | Arg | Trp | Ser | Ala | Ile | Ala | Thr | His | Leu | Pro | Lys | Arg | Thr | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Glu | Ile | Lys | Asn | Tyr | Trp | Asn | Thr | His | Leu | Lys | Lys | Arg | Leu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Met | Gly | Ile | Asp | Pro | Val | Thr | His | Lys | Pro | Lys | Asn | Asp | Ala | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Ser | Ser | Asp | Gly | Gln | Ser | Lys | Ser | Ala | Ala | Lys | Leu | Ser | His | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gln | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 2111

<211> 99

<212> PRT

<213> Eucalyptus grandis

<400> 2111

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Leu | Pro | Lys | Asn | Ala | Gly | Leu | Arg | Arg | Cys | Gly | Lys | Ser | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Arg | Trp | Thr | Asn | Tyr | Leu | Arg | Pro | Asp | Ile | Lys | Arg | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Thr | Phe | Glu | Glu | Glu | Glu | Thr | Ile | Ile | Gln | Leu | His | Gly | Val | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Asn | Lys | Trp | Ser | Ala | Ile | Ala | Ala | Gln | Leu | Pro | Gly | Arg | Thr | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Glu | Ile | Lys | Asn | Tyr | Trp | Asn | Thr | His | Ile | Lys | Lys | Arg | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Met | Gly | Ile | Asp | Pro | Val | Thr | His | Ser | Pro | Arg | Leu | Asp | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Leu | Ser | | | | | | | | | | | | | |

<210> 2112

<211> 59

<212> PRT

<213> Eucalyptus grandis

<400> 2112

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Gly | Arg | Leu | Gln | Leu | Lys | Arg | Ile | Glu | Asn | Lys | Ile | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gln | Val | Thr | Phe | Ser | Lys | Arg | Arg | Ala | Gly | Leu | Leu | Lys | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Glu | Ile | Ser | Val | Leu | Cys | Asp | Ala | Glu | Val | Ala | Leu | Ile | Ile | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

Ser Ala Lys Gly Lys Leu Phe Glu Tyr Ser Thr
50 55

<210> 2113
<211> 79
<212> PRT
<213> Eucalyptus grandis

<400> 2113
Val Lys His Asp Val Glu Thr Leu Ser Ser Lys Val Lys Met Ala Glu
1 5 10 15
Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met
20 25 30
Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser
35 40 45
Asp Thr Ser Ala Asp Ala Ala Val Pro Val Arg Asp Pro Lys His Gln
50 55 60
Phe Tyr Gln Thr Asn Ser Ser Asn Pro Ala Ser Ser Ala Asp Asp
65 70 75

<210> 2114
<211> 104
<212> PRT
<213> Eucalyptus grandis

<400> 2114
Gln Val Ala Gln Leu Arg Val Glu Asn Ser Thr Leu Leu Lys Arg Leu
1 5 10 15
Ser Asp Ile Ser Gln Lys Tyr Asn Val Ala Val Asp Asn Arg Val
20 25 30
Leu Glu Ala Asp Val Glu Thr Leu Arg Ala Glu Val Lys Met Ala Glu
35 40 45
Glu Thr Val Lys Arg Val Thr Gly Leu Asn Pro Met Leu His Val Met
50 55 60
Ser Asp Met Ser Ser Val Gly Val Pro Pro Phe Asp Gly Ser Pro Ser
65 70 75 80
Asp Thr Ser Ala Asp Ala Ala Val Pro Val Arg Asp Asp Pro Lys His
85 90 95
Gln Phe Tyr Gln Thr Asn Ser Met
100

<210> 2115
<211> 71
<212> PRT
<213> Eucalyptus grandis

<400> 2115
Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu
1 5 10 15
Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg Tyr Ile Thr Gln Tyr
20 25 30
Gly His Gly Cys Trp Ser Ser Val Pro Lys Leu Ala Gly Leu Gln Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp
50 55 60
Leu Lys Arg Gly Thr Phe Ser
65 70

<210> 2116
 <211> 55
 <212> PRT
 <213> Eucalyptus grandis

<400> 2116
 Glu Leu Gln His Leu Glu Gln Gln Leu Ser Gly Ala Leu Ser Ser Val
 1 5 10 15
 Lys Glu Lys Lys Glu Gln Trp Leu Leu Glu Gln Leu Glu Arg Ser Arg
 20 25 30
 Leu Gln Glu Gln Arg Ala Met Leu Glu Asn Glu Thr Leu Arg Arg Gln
 35 40 45
 Val Asp Glu Leu Arg Gly Phe
 50 55

<210> 2117
 <211> 62
 <212> PRT
 <213> Eucalyptus grandis

<400> 2117
 Glu Ile Ser Val Leu Cys Asp Ala Asp Val Ala Leu Ile Val Phe Ser
 1 5 10 15
 Thr Lys Gly Lys Leu Phe Glu Tyr Ala Thr Asp Cys Cys Met Glu Arg
 20 25 30
 Ile Leu Glu Arg Tyr Glu Arg Tyr Ser Tyr Ala Glu Ser Gln Val Leu
 35 40 45
 Thr Asn Asn Ala Glu Thr Asn Gly Asn Trp Thr Leu Glu His
 50 55 60

<210> 2118
 <211> 49
 <212> PRT
 <213> Eucalyptus grandis

<400> 2118
 Leu Phe Pro Pro Gln Ser Glu Gly Phe Phe Asn Pro Met Asp Gly Asn
 1 5 10 15
 Leu Ser Leu Gln Ile Gly Tyr Asn Pro Thr Cys Leu Asp Glu Met Asn
 20 25 30
 Ala Ser Val Ser Ser Gln Asn Val Ala Gly Phe Ile Pro Gly Trp Met
 35 40 45
 Leu

<210> 12119
 <211> 195
 <212> PRT
 <213> Eucalyptus grandis

<400> 2119
 Ser Gly Ser Gln Val Ser Ile Ile Met Ile Ser Ser Thr Gly Lys Leu
 1 5 10 15
 His Glu Tyr Ile Ser Pro Ser Thr Ser Thr Lys Lys Met Tyr Asp Gln
 20 25 30
 Tyr Gln Gln Ala Leu Glu Val Asp Leu Trp Ser Ser His Tyr Glu Lys

<213> Eucalyptus grandis

<400> 2122

Leu Gln Tyr Asp Trp His His Leu Ser Phe Cys Val Ile Ile Ser Val
1 5 10 15
Leu Asn Leu Gln Asn Thr Ile Asn Gly Ser Cys Ser Met Glu Ser Ile
20 25 30
Leu Glu Arg Tyr Glu Arg Tyr Thr Tyr Ala Glu Arg Gln Gln Val Ala
35 40 45
Thr Asp Ser Pro Gln Val Gln Gly Ser Trp Ser Leu Glu Tyr Pro Lys
50 55 60
Leu Val Ala Arg Ile Glu Val Leu Gln Arg Asn Ile Arg Asn Leu Ser
65 70 75 80
Gly Glu Glu Leu Asp Pro Leu Ser Leu Arg Glu Leu Gln Tyr Leu Glu
85 90 95

<210> 2123

<211> 76

<212> PRT

<213> Eucalyptus grandis

<400> 2123

Phe Leu Phe Arg Arg Lys Gln Gly Ala Val Glu Glu Leu Lys Met Val
1 5 10 15
Gln Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe Gln Leu
20 25 30
Val Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe Ile Ala
35 40 45
Lys Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg Tyr Val Arg
50 55 60
Phe Lys Ala Trp Gly Phe Phe Gly Arg Ser Tyr Phe
65 70 75

<210> 2124

<211> 55

<212> PRT

<213> Eucalyptus grandis

<400> 2124

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
1 5 10 15
Trp Thr Lys Glu Glu Asp Gln Arg Leu Ile Asp Tyr Ile Arg Leu His
20 25 30
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ser Ala Gly Leu Leu Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu
50 55

<210> 2125

<211> 123

<212> PRT

<213> Eucalyptus grandis

<400> 2125

Val Glu Gln Val Gln Phe Leu Glu Lys Ser Phe Glu Val Glu Asn Lys
1 5 10 15
Leu Glu Pro Asp Arg Lys Ile Gln Leu Ala Lys Asp Leu Gly Leu Gln

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Pro | Arg | Gln | Val | Ala | Ile | Trp | Phe | Gln | Asn | Arg | Arg | Ala | Arg | Trp | Lys | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Thr | Lys | Gln | Leu | Glu | Lys | Asp | Tyr | Glu | Thr | Leu | Gln | Ala | Ser | Phe | Asn | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Thr | Leu | Lys | Ser | Asp | Tyr | Asp | Thr | Leu | Ile | Lys | Glu | Arg | Asn | Asp | Leu | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Lys | Ala | Glu | Val | Leu | Asn | Leu | Thr | Asp | Lys | Leu | Leu | His | Lys | Gly | Asn | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Glu | Lys | Glu | Ser | Ser | Glu | Ser | Ser | Ser | Lys | Ser | Ser | Gln | Gly | Leu | Phe | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Gln | Asn | Pro | Ile | Ala | Asp | Ser | Val | Ser | Glu | Asp | | | | | | | |
| | | 115 | | | | | | 120 | | | | | | | | | |

<210> 2126

<211> 105

<212> PRT

<213> Eucalyptus grandis

<400> 2126

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Met | Ala | Arg | Phe | Pro | Arg | Val | Asp | Lys | Ser | Asn | Ser | Lys | Lys | Thr | Val | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Lys | Lys | Gly | Ala | Trp | Ser | Ala | Glu | Glu | Asp | Gln | Lys | Leu | Val | Ala | Tyr | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Ile | Lys | Arg | Tyr | Gly | Ile | Trp | Asn | Trp | Thr | His | Met | Ala | Glu | Pro | Ala | | |
| | 35 | | | | 40 | | | | | | 45 | | | | | | |
| Gly | Leu | Ala | Arg | Thr | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Met | Asn | Tyr | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Leu | Arg | Pro | Asn | Ile | Lys | His | Gly | Asn | Ile | Thr | Gln | Glu | Glu | Glu | Glu | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Ile | Ile | Ile | Asn | Leu | His | Arg | Val | Leu | Gly | Asn | Arg | Trp | Ala | Ser | Ile | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Ala | Ser | Arg | Leu | Ser | Gly | Arg | Thr | Asp | | | | | | | | | |
| | | 100 | | | | | | 105 | | | | | | | | | |

<210> 2127

<211> 115

<212> PRT

<213> Eucalyptus grandis

<400> 2127

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Met | Ala | Arg | Glu | Lys | Ile | Lys | Ile | Lys | Lys | Ile | Asp | Asn | Val | Thr | Ala | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Arg | Gln | Val | Thr | Phe | Ser | Lys | Arg | Arg | Arg | Gly | Leu | Phe | Lys | Lys | Ala | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Gly | Glu | Leu | Ser | Val | Leu | Cys | Asp | Ala | Glu | Val | Ala | Val | Val | Ile | Phe | | |
| | 35 | | | | 40 | | | | | 45 | | | | | | | |
| Ser | Ala | Thr | Gly | Lys | Leu | Phe | Glu | Tyr | Ser | Ser | Ser | Ser | Met | Lys | Asp | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Thr | Leu | Glu | Arg | Tyr | Thr | Leu | His | His | Asn | Asn | Leu | Glu | Asn | Met | Asp | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Gln | Pro | Ser | Leu | Glu | Leu | Gln | Leu | Glu | His | Ser | Asn | Asn | Met | Arg | Leu | | |
| | | | 85 | | | | 90 | | | | | | 95 | | | | |
| Ser | Lys | Glu | Val | Ala | Glu | Lys | Ser | His | Arg | Leu | Arg | Gln | Leu | Arg | Gly | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Glu | Asp | Leu | | | | | | | | | | | | | | | |
| | | 115 | | | | | | | | | | | | | | | |

<210> 2128
 <211> 155
 <212> PRT
 <213> Eucalyptus grandis

<400> 2128

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Lys | Cys | Ser | Arg | Cys | Gly | Asn | Ile | Gly | His | Asn | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Cys | Thr | Thr | Phe | Met | Gly | Ala | Ala | Ser | Ala | Cys | Gly | Leu | Lys | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Gly | Val | Gln | Leu | Asp | Leu | Ser | Ser | Ser | Pro | Pro | Ser | Ser | Ser | |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Ser | Gly | Ser | Ala | His | Pro | Tyr | Ser | Leu | Val | Ile | Lys | Lys | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Met | Asp | Arg | Leu | Ser | Ser | Ser | Ser | Ala | Ser | Ser | Ser | Ser | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Ser | Ser | Leu | Ser | Ser | Pro | Arg | Val | Leu | Ala | Asp | Glu | His | Cys | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Thr | Ser | Leu | Gly | Tyr | Leu | Ser | Asp | Gly | Leu | Ala | Ala | Arg | Ser | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Lys | Arg | Lys | Gly | Val | Pro | Trp | Thr | Glu | Glu | Glu | His | Arg | Thr | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Met | Gly | Leu | Glu | Lys | Met | Gly | Lys | Gly | Asp | Trp | Arg | Gly | Ile | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Asn | Tyr | Val | Thr | Thr | Arg | Thr | Pro | Thr | Gln | | | | | |
| 145 | | | | | | 150 | | | | 155 | | | | | |

<210> 2129
 <211> 145
 <212> PRT
 <213> Eucalyptus grandis

<400> 2129

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| Arg | Gly | Trp | Arg | Gln | Ile | Glu | Glu | His | Val | Gly | Thr | Lys | Thr | Ala | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Ile | Arg | Ser | His | Ala | Gln | Lys | Phe | Phe | Ser | Lys | Val | Ala | Arg | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ser | Gly | Ser | Ser | Glu | Gly | Val | Ile | Lys | Pro | Ile | Glu | Ile | Pro | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Arg | Pro | Lys | Arg | Lys | Pro | Met | His | Pro | Tyr | Pro | Arg | Lys | Ser | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Ser | Lys | Glu | Val | Lys | Leu | Ser | Tyr | Gln | Gln | Glu | Arg | Ser | Pro | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Ile | Ser | Ser | Val | Ala | Asp | Glu | Asn | Thr | Gly | Ser | Pro | Thr | Ser | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ser | Ala | His | Gly | Ser | Asp | Met | Leu | Gly | Ser | Ala | Ser | Leu | His | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Asn | Arg | Cys | Ser | Ser | Pro | Thr | Ser | Cys | Thr | Thr | Asp | Val | Pro | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Gly | Leu | Ala | Val | Ile | Glu | Lys | Gln | Pro | Glu | Ile | Phe | Lys | Glu | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 2130
 <211> 156

<212> PRT
 <213> Eucalyptus grandis

<400> 2130
 Phe Gly His Glu Phe Thr Ser Ser Pro Ala Ser Ser Ser Ser Leu Ser
 1 5 10 15
 Ser Ser Arg Ile Ser Ile Gly Glu Asn Ser Asp Lys Ala Ser Leu Gly
 20 25 30
 Tyr Leu Ser Asp Gly Leu Leu Gly Arg Ser Gln Glu Lys Lys Lys Gly
 35 40 45
 Val Pro Trp Thr Glu Glu Glu His Arg Thr Phe Leu Val Gly Leu Glu
 50 55 60
 Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr
 65 70 75 80
 Thr Arg Thr Pro Ala Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu
 85 90 95
 Arg Gln Val Ser Phe Asn Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp
 100 105 110
 Met Val Asp Val Lys Thr Ala Ala Gly Asp Arg Leu Gly Ser Leu Thr
 115 120 125
 Ala Lys Pro Ser Glu Ser Val Pro Asn Cys Lys Met Gly Thr Leu Met
 130 135 140
 Ser His Leu Gln Val His Asp Ala Arg Thr Thr Gln
 145 150 155

<210> 2131
 <211> 49
 <212> PRT
 <213> Eucalyptus grandis

<400> 2131
 Met Val Gln Glu Val Arg Lys Gly Pro Trp Thr Glu Gln Glu Asp Phe
 1 5 10 15
 Gln Leu Val Cys Phe Val Gly Leu Phe Gly Asp Arg Arg Trp Asp Phe
 20 25 30
 Ile Ala Lys Val Ser Gly Leu Lys Val Ala Gly Glu Asn Asn Arg Ile
 35 40 45
 Glu

<210> 2132
 <211> 151
 <212> PRT
 <213> Eucalyptus grandis

<400> 2132
 Asp Asp Val Cys Gly Gly Gly Lys Arg Pro Glu Arg Pro Phe Phe Cys
 1 5 10 15
 Thr Tyr Asp Gly Glu Glu Asn Gly Asp Asp Asp Tyr Asp Glu Tyr Leu
 20 25 30
 His Gln Pro Glu Lys Lys Arg Arg Leu Ser Ile Glu Gln Val Leu Tyr
 35 40 45
 Leu Glu Lys Ser Phe Glu Thr Asp Asn Lys Leu Glu Pro Asp Lys Lys
 50 55 60
 Val Gln Leu Ala Lys Glu Leu Gly Leu Gln Pro Arg Gln Val Ala Ile
 65 70 75 80
 Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys Thr Lys Gln Met Glu Lys

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Asp | Phe | Asp | Lys | Leu | Gln | Ala | Ser | Phe | Asn | Cys | Leu | Lys | Ser | Asp | Tyr | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Glu | Ser | Leu | Leu | Asn | Glu | Lys | Glu | Lys | Leu | Lys | Ala | Glu | Val | Ile | His | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Thr | His | Gln | Leu | Glu | Gln | Arg | Ser | Asn | Gly | Ile | Leu | Asn | His | Ser | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Thr | Tyr | Leu | Asn | Asn | Cys | Thr | | | | | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | | | |

<210> 2133
 <211> 133
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | | | | | | | | | | | | | | |
| Met | Gly | Ser | Arg | Thr | Arg | Val | Gly | Gly | Gly | Gly | Asp | Asp | Gly | Arg | Val | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Val | Asn | Gly | Met | Pro | Ser | Phe | Val | Pro | Gln | Leu | Pro | Thr | Ser | Asn | Ser | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Met | Gly | Ser | Glu | Gly | Asn | Ser | Ile | Arg | Ser | Ser | Arg | Ile | Thr | Asp | Phe | | |
| | | 35 | | | | 40 | | | | | | 45 | | | | | |
| Gly | Thr | Leu | Glu | Gln | Ser | Leu | Gly | Tyr | Arg | Ile | Glu | Asp | Ala | Val | Asp | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Leu | Ser | Arg | Asn | Pro | Val | Phe | Asn | Gln | Met | Lys | Ser | Ser | Ala | Gln | Ala | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Leu | Gly | Ala | Asp | Val | Gln | Phe | Gly | Ser | Leu | Asn | Lys | Ser | Leu | Ser | Ser | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Ser | Asp | Arg | Asn | Leu | Ser | Val | Asn | Ile | Val | Gly | Ser | Gln | Thr | Leu | Ser | | |
| | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Met | His | Arg | Glu | Ser | Gln | Ser | Asn | Leu | Val | Ser | Ile | Pro | Gly | Ala | His | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |
| Arg | Glu | Asn | Trp | Gly | | | | | | | | | | | | | |
| 130 | | | | | | | | | | | | | | | | | |

<210> 2134
 <211> 150
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | | | | | | | | | | | | | | |
| Met | Pro | Pro | Pro | Arg | Ala | Ala | Thr | Pro | Asp | Val | Ala | Gly | Asp | Glu | Ser | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Ser | Gly | Ala | Asp | Ala | Gly | Ala | Gly | Glu | Ile | Met | Leu | Phe | Gly | Val | Arg | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Val | Val | Val | Asp | Ser | Met | Arg | Lys | Cys | Val | Ser | Leu | Asn | Asn | Leu | Ser | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Gln | Tyr | Gln | His | Pro | Gln | Asp | Ala | Asn | Pro | Pro | Asn | Ala | Ser | Gly | Gly | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Ser | Gly | Gly | Asn | Lys | Glu | Glu | Ala | Ala | Lys | Gly | Tyr | Ala | Ser | Ala | Asp | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Asp | Ala | Ala | His | Asn | Pro | Gly | Gly | Gly | Arg | Glu | Arg | Lys | Arg | Gly | Val | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Pro | Trp | Thr | Glu | Glu | Glu | His | Arg | Leu | Phe | Leu | Leu | Gly | Leu | Gln | Lys | | |
| | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Val | Gly | Lys | Gly | Asp | Trp | Arg | Ala | Ile | Ser | Arg | Asn | Phe | Val | Lys | Thr | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |

Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg
 130 135 140
 Arg Ser Asn Leu Asn Arg
 145 150

<210> 2135
 <211> 125
 <212> PRT
 <213> Eucalyptus grandis

<400> 2135
 Glu Asn Val Ala Ser Gly Ser Thr Glu Arg Pro Arg Ile Arg His Gln
 1 5 10 15
 His Ser Gln Ser Met Asp Gly Ser Thr Ser Ile Lys Pro Glu Met Leu
 20 25 30
 Met Ser Gly Ser Glu Asp Ala Ser Ala Ala Asp Ala Lys Lys Ala Met
 35 40 45
 Ser Ala Ala Lys Leu Ala Glu Leu Ala Leu Ile Asp Pro Lys Arg Ala
 50 55 60
 Lys Arg Ile Trp Ala Asn Arg Gln Ser Ala Ala Arg Ser Lys Glu Arg
 65 70 75 80
 Lys Met Arg Tyr Ile Ala Glu Leu Glu Arg Lys Val Gln Thr Leu Gln
 85 90 95
 Thr Glu Ala Thr Thr Leu Ser Ala Gln Leu Thr Leu Leu Gln Arg Asp
 100 105 110
 Thr Asn Gly Leu Thr Ala Glu Asn Ser Glu Leu Lys Leu
 115 120 125

<210> 2136
 <211> 72
 <212> PRT
 <213> Eucalyptus grandis

<400> 2136
 Met Ala Asp Ser Glu His Ser Ser Ser Asp Asp Thr Tyr Val Asp Ser
 1 5 10 15
 Arg Glu Glu Thr Ser Glu Glu Ser Lys Leu Asp Phe Ser Glu Asp Glu
 20 25 30
 Glu Thr Leu Val Ile Arg Met Tyr Asn Leu Val Gly Glu Arg Trp Ser
 35 40 45
 Leu Ile Ala Gly Arg Ile Pro Gly Arg Thr Ala Glu Glu Ile Glu Lys
 50 55 60
 Tyr Trp Asn Ser Arg Tyr Ser Thr
 65 70

<210> 2137
 <211> 135
 <212> PRT
 <213> Eucalyptus grandis

<400> 2137
 Met Ala Gly Glu Glu Pro Tyr Ser Ala Asp Thr Asn Ser Asp Thr Phe
 1 5 10 15
 Ala Asp Glu Glu Thr Leu Ile Pro Ser Ser Ser Glu Ala Leu Glu Ser
 20 25 30
 Ala Trp Val Pro Thr Ser Ser Thr Ala His His Gly Ser Lys Ser Val
 35 40 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Phe | Glu | Asp | Val | Cys | Gly | Gly | Gly | Asp | Thr | Asn | Thr | Ala | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Pro | Tyr | Leu | Arg | Gln | Ile | Asp | Leu | Lys | Glu | Glu | Ala | Val | Glu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Tyr | Gly | Asp | Gly | Asn | Phe | Gln | Pro | Pro | Gly | Lys | Lys | Arg | Arg | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Ala | Asp | Gln | Val | His | Phe | Leu | Glu | Arg | His | Phe | Glu | Val | Glu | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Leu | Glu | Pro | Glu | Arg | Lys | Ile | Gln | Leu | Ala | Lys | Asp | Leu | Gly | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Pro | Arg | Gln | Val | Ala | Ile | | | | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 2138

<211> 123

<212> PRT

<213> Eucalyptus grandis

<400> 2138

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Thr | Glu | Asp | Ser | Lys | Lys | Lys | Glu | Arg | His | Ile | Val | Thr | Trp | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Glu | Glu | Asp | Asp | Ile | Leu | Arg | Glu | Gln | Ile | Gly | Ile | His | Gly | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Asn | Trp | Ser | Ile | Ile | Ala | Ser | Lys | Phe | Lys | Asp | Lys | Thr | Thr | Arg |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gln | Cys | Arg | Arg | Arg | Trp | Tyr | Thr | Tyr | Leu | Asn | Ser | Asp | Phe | Lys | Lys |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gly | Gly | Trp | Ser | Pro | Glu | Glu | Asp | Val | Leu | Leu | Cys | Glu | Ala | Gln | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Ile | Phe | Gly | Asn | Arg | Trp | Thr | Glu | Ile | Ala | Lys | Val | Val | Ser | Gly | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Asp | Asn | Ala | Val | Lys | Asn | Arg | Phe | Thr | Thr | Leu | Cys | Lys | Lys | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Arg | Tyr | Glu | Ala | Leu | Ala | Lys | Glu | Asn | Thr | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 2139

<211> 126

<212> PRT

<213> Eucalyptus grandis

<400> 2139

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Gln | Pro | Cys | Cys | Asp | Lys | Leu | Gly | Val | Lys | Lys | Gly | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Thr | Ala | Glu | Asp | Arg | Lys | Leu | Val | Asn | Phe | Ile | Leu | Thr | His | |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Gly | Gln | Cys | Cys | Trp | Arg | Ala | Val | Pro | Lys | Leu | Ala | Gly | Leu | Arg | Arg |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Cys | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Thr | Asn | Tyr | Leu | Arg | Pro | Asp |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Lys | Arg | Gly | Leu | Leu | Asn | Glu | Ala | Glu | Glu | Ser | Leu | Val | Ile | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Leu | His | Ala | Thr | Leu | Gly | Asn | Arg | Trp | Ser | Lys | Ile | Ala | Ala | Arg | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Gly | Arg | Thr | Asp | Asn | Glu | Ile | Lys | Asn | His | Trp | Asn | Thr | His | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Lys | Lys | Leu | Ile | Arg | Met | Gly | Ile | Asp | Pro | Val | Thr | His | | |

50 55 60

His
65

<210> 2143
<211> 121
<212> PRT
<213> Pinus radiata

<400> 2143

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Ser | Tyr | Leu | Gly | Ser | Leu | Thr | Glu | Thr | Ile | Gln | Ser | Leu | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Glu | Leu | Glu | Arg | Thr | Arg | Ser | Glu | Leu | Val | Glu | Ala | Lys | Lys | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Glu | Glu | Ile | Ile | Ser | Lys | Glu | Ala | Glu | Arg | Val | Glu | Lys | Asn | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Glu | Val | Glu | Asn | Leu | Glu | Leu | Asn | Leu | Leu | Gln | Thr | Thr | Ala | Glu |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ala | Gly | Arg | Ala | Lys | Leu | Glu | Leu | Glu | Thr | Ala | Tyr | Glu | Glu | Val | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Ala | Arg | Leu | Glu | Thr | Ala | Gln | Leu | Arg | Ala | Ala | Leu | Glu | Ala | Thr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Glu | Gly | Lys | Phe | Glu | Ala | Met | Leu | Ser | Glu | Thr | Arg | Leu | Glu | Ala | Glu |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| His | Val | Lys | Gly | Ala | Ile | Glu | Lys | Tyr | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 2144
<211> 71
<212> PRT
<213> Pinus radiata

<400> 2144

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ile | Leu | Val | Thr | Gln | Ile | Glu | Gln | Leu | Gln | Arg | Lys | Glu | Arg | Met |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Ser | Glu | Glu | Asn | Asn | Phe | Leu | Arg | Lys | Arg | Ile | Val | Asp | Pro | His |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Ser | Val | Leu | Thr | Thr | Pro | Ala | Ser | Gly | Ser | Gly | Ser | Leu | Gln | Arg | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Val | Glu | Thr | Gln | Leu | Val | Met | Arg | Pro | Pro | Ser | Ser | Asn | Ala | Asp |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Phe | Leu | Phe | Asn | Ser | Ser | His | | | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 2145
<211> 110
<212> PRT
<213> Pinus radiata

<400> 2145

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Val | Trp | Gly | Ala | Leu | Lys | Met | Gly | Lys | Thr | Lys | Met | Glu | Ile |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Lys | Arg | Ile | Gln | Asn | Pro | Ser | Arg | Arg | Gln | Val | Thr | Phe | Ser | Lys | Arg |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Lys | Asn | Gly | Leu | Leu | Lys | Lys | Ala | Phe | Glu | Leu | Ser | Val | Leu | Cys | Asp |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ala | Glu | Val | Ala | Leu | Ile | Ile | Phe | Ser | Glu | Thr | Gly | Lys | Ile | Cys | Glu |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 50 | | 55 | | 60 | | | | | | | | | | | | |
| Phe | Ala | Ser | His | Asp | Asp | Met | Ala | Thr | Ile | Leu | Glu | Lys | Tyr | Arg | Ile | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Tyr | Thr | Glu | Thr | His | Gly | Asn | Met | Glu | Ser | Ser | Ser | Val | Gln | Ser | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Lys | Ile | Gly | Glu | Ser | Gln | Leu | Lys | Ala | Leu | Arg | Glu | Lys | Met | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |

<210> 2146
 <211> 50
 <212> PRT
 <213> Pinus radiata

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 2146 | | | | | | | | | | | | | | | | |
| Leu | Arg | Gly | Ala | Asn | Gly | Cys | Thr | Ile | Pro | Ser | Ile | Gly | Leu | Thr | Ser | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ile | Glu | Arg | Val | Glu | Val | Gln | Thr | Gln | Leu | Val | Met | Arg | Pro | Pro | His | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ala | Thr | Glu | Met | Asp | Asp | Asn | Phe | Met | Asp | Val | Asp | Asn | Val | Pro | Leu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ser | Gly | | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | |

<210> 2147
 <211> 168
 <212> PRT
 <213> Pinus radiata

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 2147 | | | | | | | | | | | | | | | | |
| Glu | Asp | Gly | Ser | Leu | Val | Ile | Cys | Glu | Arg | Ser | Leu | Ser | Ala | Ala | Gln | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Gly | Met | Pro | Met | Val | Ser | Gln | Ser | Gln | Ser | Phe | Val | His | Gly | Glu | Leu | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Ser | Ser | Gly | Tyr | Leu | Ile | Arg | Pro | Cys | Glu | Gly | Arg | Gly | Ala | Leu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Ile | Met | Val | Asp | His | Arg | Asn | Leu | Glu | Ala | Ser | Ser | Val | Pro | Glu | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Ala | Leu | Arg | Pro | Leu | Tyr | Glu | Ser | Ser | Thr | Phe | Phe | Ala | Gln | Lys | Met | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | |
| Thr | Val | Glu | Ala | Ser | Tyr | His | Leu | Gln | Gly | Lys | Val | Gln | Pro | Glu | Met | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Ile | Ser | Leu | Ser | Lys | Lys | Leu | Gln | Gln | Pro | Cys | Asn | Val | Arg | Ser | Tyr | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Gln | Arg | Leu | Cys | Arg | Gly | Phe | Asn | Glu | Ala | Val | Asn | Thr | Leu | Pro | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Asp | Asp | Gly | Trp | Met | Ser | Leu | Ser | Lys | Asp | Gly | Leu | Gly | Asp | Val | Thr | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | Cys | Glu | Ser | Phe | Val | Lys | Leu | Pro | Glu | Pro | Asn | Ala | Ser | Gln | Ile | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ala | Tyr | Val | Asn | Ser | Met | Gly | Thr | | | | | | | | | |
| | | | | | 165 | | | | | | | | | | | |

<210> 2148
 <211> 120
 <212> PRT
 <213> Pinus radiata

<400> 2148
 Glu Asn Glu Ser Leu Arg Ala Arg Leu Arg His Met Asn Gly Asp Asp
 1 5 10 15
 Ile Asn Ser Leu Lys Leu Pro Glu Leu Phe His Leu Glu Gln Gln Leu
 20 25 30
 Glu Thr Ala Ala Thr Gln Val Arg Arg Arg Lys Asp Gln Val Leu Asp
 35 40 45
 Asn Glu Lys Ile Lys Arg Arg Asn Lys Met Arg Arg Lys Glu Asp Glu
 50 55 60
 Asn Ile Ile Leu His Glu Met Leu Asp Gln His His Gly Gln Met Glu
 65 70 75 80
 Glu Asp Asn Ala Gln Ile Asn Phe Leu Phe Cys Gln Pro Leu Asn Arg
 85 90 95
 Ser Asp Thr Thr Phe Pro Ala Ser Leu Arg Leu Gln Pro Asn Gln
 100 105 110
 Pro Asn Leu Gln Asp Ile Gly Tyr
 115 120

<210> 2149
 <211> 165
 <212> PRT
 <213> Pinus radiata

<400> 2149
 Ser Pro Gln Val Glu His Arg Pro Phe Ser Pro His Glu Asp Ala Thr
 1 5 10 15
 Ile Ile Gln Ala His Ala Arg His Gly Asn Lys Trp Ala Thr Ile Ala
 20 25 30
 Arg Leu Leu Pro Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn
 35 40 45
 Ser Thr Leu Arg Arg Arg Tyr His Gly Glu Lys Asp Gln Ser Asn Gly
 50 55 60
 Leu Ala Val Asn Leu Glu Ser Ala Ala Glu Asp Lys Glu Thr Met Thr
 65 70 75 80
 Pro Met Thr Pro Val Thr Ala Thr Ala Thr Ala Thr Ala Met
 85 90 95
 Pro Val Ala Leu Val Phe Pro Thr Ala Ala Asp Asn Val Arg Lys Arg
 100 105 110
 Ser Asn Ser Ser Cys Ser Ala Asn Asp Asn Pro Gly Asp Ala Glu Val
 115 120 125
 Glu Ser Cys Arg Leu Lys Arg Leu Asn Phe Ser Glu Ser Pro Ser Ser
 130 135 140
 Ser Glu Asn Ile Asn Asn Asn Asn Asn Glu Glu Ala Val Ser Gly
 145 150 155 160
 His Cys Asn Ser Ala
 165

<210> 2150
 <211> 68
 <212> PRT
 <213> Pinus radiata

<400> 2150
 Met Gly Arg Gly Pro Val Gln Leu Arg Arg Ile Glu Asn Lys Ile Asn
 1 5 10 15
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Lys Lys Ala
 20 25 30

Ser Glu Leu Ser Ile Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe
 35 40 45
 Ser Asn Lys Gly Lys Leu Tyr Glu Phe Ser Ser Ser Ser Met Thr Lys
 50 55 60
 Ile Leu Glu Arg
 65

<210> 2151
 <211> 152
 <212> PRT
 <213> Pinus radiata

<400> 2151
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile
 1 5 10 15
 Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Thr Phe Ser Pro Gln Glu
 20 25 30
 Glu Asn Leu Ile Val Glu Leu His Ser Val Leu Gly Asn Arg Trp Ser
 35 40 45
 Gln Ile Ala Thr His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn
 50 55 60
 Leu Trp Asn Ser Cys Ile Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp
 65 70 75 80
 Pro Asn Thr His Arg Pro Leu Ser Glu Val Asn Ala Glu Ala Gly Asp
 85 90 95
 Ser Lys Asn Asp Asn Ser Asn Lys Glu Val Glu Thr Gln Ala Ala Met
 100 105 110
 Asp Glu Ser His Val Ser Ala Gly Asn Glu Phe Lys His Leu Asn Ala
 115 120 125
 Ile Pro Arg Ala Asp Thr Ala Asn Pro Lys Phe Phe His Val Pro Val
 130 135 140
 Glu Asp Asn Thr Leu Ile Ala Ser
 145 150

<210> 2152
 <211> 89
 <212> PRT
 <213> Pinus radiata

<400> 2152
 Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys
 1 5 10 15
 Val Lys Lys Gly Leu Trp Ser Pro Glu Glu Asp Glu Lys Leu Ile Asn
 20 25 30
 Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala
 35 40 45
 Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp
 50 55 60
 Thr Asn Tyr Leu Arg Pro Gly Leu Lys Arg Gly Ala Ile Ser Pro Glu
 65 70 75 80
 Glu Glu Gln Leu Ile Ile His Leu Gln
 85

<210> 2153
 <211> 94
 <212> PRT
 <213> Pinus radiata

<400> 2153
Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro
1 5 10 15
Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His
20 25 30
Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys
35 40 45
Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro
50 55 60
Asp Ile Arg His Gly Gly Phe Ser Glu Asp Glu Asp Asn Ile Ile Cys
65 70 75 80
Ser Leu Tyr Ala Ser Ile Gly Ser Met Val Ser Ile Ile Ala
85 90

<210> 2154
<211> 217
<212> PRT
<213> Pinus radiata

<400> 2154
Met Val Arg Gly Lys Thr Gln Met Lys Arg Ile Glu Asn Asp Thr Ser
1 5 10 15
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Leu Lys Lys Ala
20 25 30
Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Ile Ile Phe
35 40 45
Ser Pro Arg Gly Lys Leu Tyr Glu Phe Ala Ser Pro Ser Met Glu Glu
50 55 60
Ile Leu Glu Lys Tyr Lys Lys Arg Ser Lys Glu Asn Gly Met Ala Gln
65 70 75 80
Thr Thr Lys Glu Gln Asp Thr Gln Tyr Ser Lys His Ser Lys Gln Lys
85 90 95
Leu Ala Asn Met Glu Glu Gln Ile Arg Ile Leu Glu Ser Thr Gln Arg
100 105 110
Lys Met Leu Gly Glu Gly Leu Glu Ser Cys Ser Met Ala Glu Leu Asn
115 120 125
Lys Leu Glu Ser Gln Ala Glu Arg Gly Leu Ser His Ile Arg Ala Arg
130 135 140
Lys Thr Glu Ile Leu Val Asp Gln Ile Glu Cys Leu Lys Arg Lys Glu
145 150 155 160
Arg Leu Leu Ser Glu Glu Asn Ala Leu Leu Ser Arg Lys Trp Val Asp
165 170 175
Arg Gln Ser Val Asp Gly Ser Gly Ser Thr Ser Ser Ser Ile Gly Leu
180 185 190
Gly Ser Ile Glu Gln Ile Glu Val Glu Thr Gln Leu Val Ile Arg Pro
195 200 205
Pro Asn Ala Gln Asp His Cys Ser Val
210 215

<210> 2155
<211> 113
<212> PRT
<213> Pinus radiata

<400> 2155
Leu Gly Trp Gly Arg Gln Pro Ala Ala Leu Arg Thr Phe Ser Gln Arg

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Leu | Cys | Lys | Gly | Phe | Asn | Glu | Ala | Val | Asn | Gly | Phe | Thr | Asp | Asp | Gly | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Trp | Ser | Leu | Met | Gly | Asn | Asp | Gly | Met | Glu | Asp | Val | Thr | Ile | Leu | Val | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Asn | Ser | Ser | Pro | Ser | Lys | Leu | Phe | Gly | Gln | Gln | Phe | Ala | Ser | Ser | Asp | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Gly | Leu | Pro | Ala | Leu | Gly | Gly | Gly | Ile | Leu | Cys | Ala | Lys | Ala | Ser | Met | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Leu | Leu | Gln | Asn | Val | Pro | Pro | Ala | Leu | Leu | Val | Arg | Phe | Leu | Arg | Glu | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| His | Arg | Ser | Glu | Trp | Ala | Asp | Ser | Asn | Ile | Asp | Ala | Tyr | Ser | Ala | Ala | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ser | | | | | | | | | | | | | | | | | |

<210> 2156
 <211> 107
 <212> PRT
 <213> Pinus radiata

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | | | | | | | | | | | | | | |
| Met | Gly | Arg | Ser | Pro | Cys | Cys | Glu | Lys | Ala | His | Thr | Asn | Lys | Gly | Ala | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Trp | Thr | Lys | Glu | Glu | Asp | Asp | Arg | Leu | Ile | Ala | His | Ile | Arg | Thr | His | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Gly | Glu | Gly | Cys | Trp | Arg | Ser | Leu | Pro | Lys | Ala | Ala | Gly | Leu | Met | Arg | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Cys | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Ile | Asn | Tyr | Leu | Arg | Pro | Asp | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Leu | Lys | Arg | Gly | Asn | Phe | Ser | Glu | Glu | Glu | Asp | Glu | Leu | Ile | Ile | Lys | | |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 | | |
| Leu | His | Ser | Leu | Leu | Gly | Asn | Lys | Trp | Ser | Leu | Ile | Ala | Gly | Arg | Leu | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Pro | Gly | Arg | Thr | Asp | Asn | Glu | Ile | Lys | Asn | Tyr | | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | | | |

<210> 2157
 <211> 124
 <212> PRT
 <213> Pinus radiata

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | | | | | | | | | | | | | | |
| Leu | Trp | Leu | Arg | Phe | Ser | Gly | Met | Asp | Arg | Ser | Asn | Ser | Ala | Thr | Gly | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Glu | Glu | Asp | Val | Leu | Ser | Arg | Cys | Arg | Glu | Arg | Lys | Arg | Phe | Met | Lys | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Leu | Ala | Ile | Glu | Asn | Arg | Tyr | Lys | Leu | Ala | Thr | Ala | His | Val | Ala | Tyr | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Met | Asp | Ser | Leu | Arg | Arg | Met | Gly | Thr | Gly | Leu | Arg | Leu | Phe | Ala | Glu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Gly | Glu | Thr | Met | Ser | Glu | Ser | Ser | Tyr | Ser | Thr | Ser | Pro | Ile | Gly | Thr | | |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | | | |
| Ser | Glu | Leu | Ala | Val | Val | Leu | Pro | Glu | Lys | Ser | Val | Ser | Pro | Ser | Pro | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Phe | Pro | Ser | Ser | Ser | Pro | Ser | Leu | Ser | Gln | Pro | Gln | Ser | Pro | Arg | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |

Glu Arg Ala Glu Ser Arg Ser Pro Leu Asp Ser Phe
 115 120

<210> 2158
 <211> 110
 <212> PRT
 <213> Pinus radiata

<400> 2158
 Asp Gly Leu Val Gln Asn Ser Arg Glu Arg Lys Lys Gly Val Pro Trp
 1 5 10 15
 Thr Glu Glu Glu His Lys Met Phe Leu Leu Gly Leu His Lys Leu Gly
 20 25 30
 Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn Phe Val Thr Ser Arg Thr
 35 40 45
 Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Ser
 50 55 60
 Asn Leu Asn Lys Arg Lys Arg Arg Ser Ser Leu Phe Asp Ile Ser Thr
 65 70 75 80
 Asp Ser Met Glu Asp Cys Tyr Gln Gly Ile Pro Glu Leu Ser Pro Val
 85 90 95
 Met His Asp Leu Ser Leu Gly Gln Asn Ser Ser Leu Thr Ser
 100 105 110

<210> 2159
 <211> 175
 <212> PRT
 <213> Pinus radiata

<400> 2159
 Ser Ser Pro Val Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp Ser Pro
 1 5 10 15
 Glu Glu Asp Asp Lys Leu Ile Asn Tyr Met Met Lys Asn Gly Gln Gly
 20 25 30
 Cys Trp Ser Asp Val Ala Lys Gln Ala Gly Leu Gln Arg Cys Gly Lys
 35 40 45
 Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg
 50 55 60
 Gly Ala Phe Ser Pro Gln Glu Glu Gln Leu Ile Ile His Leu His Ser
 65 70 75 80
 Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala Arg Leu Pro Gly Arg
 85 90 95
 Thr Asp Asn Glu Ile Lys Asn Phe Trp Asn Ser Cys Ile Lys Lys Lys
 100 105 110
 Leu Lys His Leu Ser Ala Ser Thr Asn Asn Ser Lys Ser Ile Ser Ala
 115 120 125
 Pro Asn Arg Thr Ser Thr Met Asn Ser Ser Ile Thr Pro Phe Ser Glu
 130 135 140
 Ser Ser Ala Glu Pro Leu Glu Val Met Ala Thr Arg Tyr Gln Pro Ser
 145 150 155 160
 Asn Ala Phe Asn His Glu Val Pro Thr Ala Glu Asn Gln Val Leu
 165 170 175

<210> 2160
 <211> 78
 <212> PRT
 <213> Pinus radiata

<400> 2160
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Leu Ala Tyr Ile Gln Glu His
 20 25 30
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Leu Leu Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp
 50 55 60
 Ile Lys Arg Gly Lys Phe Asn Pro Gln Glu Glu Gln Thr Ile
 65 70 75

<210> 2161
 <211> 159
 <212> PRT
 <213> Pinus radiata

<400> 2161
 Arg Thr Pro Arg Cys Asp Gln Met Gly Leu Lys Lys Gly Pro Trp Thr
 1 5 10 15
 Pro Glu Glu Asp Gln Ile Leu Ile Ser Tyr Ile Asn Lys His Gly His
 20 25 30
 Gly Asn Trp Arg Ala Leu Pro Lys Gln Ala Gly Leu Met Arg Cys Gly
 35 40 45
 Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Ile Lys
 50 55 60
 Arg Gly Asn Phe Ser Leu Lys Glu Glu Gln Thr Ile Ile His Leu His
 65 70 75 80
 Gln Ile Leu Gly Asn Arg Trp Ser Ala Ile Ala Ser His Leu Pro Gly
 85 90 95
 Arg Thr Asp Asn Glu Ile Lys Asn Val Trp Asn Thr His Leu Lys Lys
 100 105 110
 Arg Leu Leu Gln Ile Gly Val Asp Pro Val Thr His Ala Pro Arg Gly
 115 120 125
 Tyr Asn Val Ser Asn Cys Tyr Thr Ala Val Asn Ile Arg Asp His His
 130 135 140
 Gly Glu Gln Ala Asp His Gln Leu Gln Ser His Val Cys Val Ser
 145 150 155

<210> 2162
 <211> 49
 <212> PRT
 <213> Pinus radiata

<400> 2162
 Thr Pro Glu Glu Asp Arg Ile Leu Ile Ser Tyr Ile Lys Arg Asn Gly
 1 5 10 15
 His Gly Lys Trp Leu Ala Leu Pro Lys Gln Ala Gly Leu Ser Arg Cys
 20 25 30
 Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asn Ile
 35 40 45
 Lys

<210> 2163
 <211> 78

<212> PRT
 <213> Pinus radiata

<400> 2163
 Met Gly Thr Gly Glu Glu Ala Thr Pro Thr Lys Pro Ala Ala Lys Pro
 1 5 10 15
 Ser Ser Ser Ser Gln Glu Thr Pro Thr Thr Pro Val Tyr Pro Asp Trp
 20 25 30
 Ala Ala Ala Phe Gln Ala Tyr Tyr Gly Pro Gly Ala Thr Pro Pro Pro
 35 40 45
 Pro Ala Phe Phe Ala Ser Thr Val Gly Ser Ala Pro Thr Pro His Pro
 50 55 60
 Tyr Met Trp Gly Gly Gln Pro Leu Met Pro Pro Tyr Gly Thr
 65 70 75

<210> 2164
 <211> 113
 <212> PRT
 <213> Pinus radiata

<400> 2164
 Met Gly Arg Gly Lys Ile Glu Ile Lys Lys Ile Asp Asp Val Thr Ser
 1 5 10 15
 Arg Gln Val Thr Phe Ser Lys Arg Lys Met Gly Ile Phe Lys Lys Ala
 20 25 30
 His Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Val Leu Ile Phe
 35 40 45
 Ser Asn Thr Gly Arg Leu Tyr Asp Tyr Ala Ser Ser Arg Cys Met Glu
 50 55 60
 Arg Thr Ile Glu Arg Tyr Glu Lys Cys Thr Lys Ala Ile Asn Cys Pro
 65 70 75 80
 Thr Ser Asp Pro Ile Val Glu Asn Lys Ser Pro Ile Gln Glu Gly Ile
 85 90 95
 Glu Ile Leu Arg Gln Lys Leu Arg Ala Leu Gln Arg Leu Gln Arg Asn
 100 105 110
 Leu

<210> 2165
 <211> 107
 <212> PRT
 <213> Pinus radiata

<400> 2165
 Thr Lys Ala Ala Ile Lys Arg Leu Gln Ser Gln Ile Met Val Ala Phe
 1 5 10 15
 Gln Ala Val Asp Thr Thr Ser Ala Ala Ile Leu Lys Leu Arg Glu Asp
 20 25 30
 Glu Leu Tyr Pro Gln Leu Val Glu Leu Ser Lys Gly Leu Met Gln Met
 35 40 45
 Trp Arg Ala Met Tyr Glu Cys His Gln Val Gln Asn His Ile Val Gln
 50 55 60
 Gln Val Arg His Leu Gly Asn Leu Ala Ser Ala Glu Ala Thr Ser Ser
 65 70 75 80
 Tyr His Gln Gln Ala Thr Ile Gln Leu Glu Ala Gln Val Thr Ala Trp
 85 90 95
 Tyr Asp Ser Phe Cys Arg Met Ile Thr Ser Gln

100

105

<210> 2166
<211> 38
<212> PRT
<213> Pinus radiata

<400> 2166
Met Gly Ala Pro Lys Gln Lys Trp Thr Ser Glu Glu Glu Gly Ala Leu
1 5 10 15
Arg Ala Gly Val Glu Lys Tyr Gly Ala Gly Lys Trp Gln Thr Ile Leu
20 25 30
Lys Asp Pro Glu Phe Ala
35

<210> 2167
<211> 158
<212> PRT
<213> Pinus radiata

<400> 2167
Ser Gly His Met Asp Gly Gly Ser Gly Glu Asp Gln Asp Ala Ala Asp
1 5 10 15
Gln Asp His Asp His Asp His Asp His Asp His Glu Gln Gln Gln Thr
20 25 30
Arg Arg Lys Arg Tyr His Arg His Thr Ala Arg Gln Ile Gln Glu Met
35 40 45
Glu Ala Leu Phe Lys Glu Cys Pro His Pro Asp Asp Lys Gln Arg Gln
50 55 60
Arg Leu Ser Ile Glu Leu Gly Leu Lys Pro Arg Gln Val Lys Phe Trp
65 70 75 80
Phe Gln Asn Arg Arg Thr Gln Met Lys Ala Gln Gln Asp Arg Ser Asp
85 90 95
Asn Ala Ile Leu Arg Ala Glu Asn Glu Asn Leu Arg Asn Glu Asn Val
100 105 110
Ala Leu Arg Glu Ala Ile Lys Asn Gly Ala Cys Pro Asn Cys Gly Gly
115 120 125
Ser Thr Ser Leu Gly Glu Met Pro Gly Phe Asp Glu His His Phe Arg
130 135 140
Ile Glu Asn Thr Arg Leu Lys Glu Glu Leu Asp Arg Val Ser
145 150 155

<210> 2168
<211> 122
<212> PRT
<213> Pinus radiata

<400> 2168
Met Gly Cys Thr Gln Gly Gln Arg Gln Gly Glu Trp Glu Gly Lys Gly
1 5 10 15
Val Pro Ser Asn Ser Ser Arg Arg Ser Leu Arg Lys Gly Leu Trp Ser
20 25 30
Pro Asp Glu Asp Ile Glu Leu Thr Thr Tyr Ile Met Arg Lys Gly Leu
35 40 45
Met Gly Cys Trp Asn Tyr Ile Ala Lys Gln Ala Gly Leu Gln Arg Cys
50 55 60
Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Gly Leu

65 70 75 80
 Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile Ile Gln Leu
 85 90 95
 Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala His Leu Pro
 100 105 110
 Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr
 115 120

<210> 2169
 <211> 101
 <212> PRT
 <213> Pinus radiata

<400> 2169
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1 5 10 15
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His
 20 25 30
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His Pro Asp
 50 55 60
 Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile Val Arg
 65 70 75 80
 Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Arg Leu
 85 90 95
 Pro Gly Arg Thr Asp
 100

<210> 2170
 <211> 133
 <212> PRT
 <213> Pinus radiata

<400> 2170
 Arg Leu Leu Pro Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn
 1 5 10 15
 Ser Thr Leu Arg Arg Arg Tyr His Gly Glu Lys Asp Gln Ser Asn Gly
 20 25 30
 Leu Ala Val Asn Leu Glu Ser Ala Ala Glu Asp Lys Glu Thr Met Thr
 35 40 45
 Pro Met Thr Pro Val Thr Ala Thr Ala Thr Ala Thr Ala Met
 50 55 60
 Pro Val Ala Leu Val Phe Pro Thr Ala Ala Asp Asn Val Arg Lys Arg
 65 70 75 80
 Ser Asn Ser Ser Cys Ser Ala Asn Asp Asn Pro Gly Asp Ala Glu Val
 85 90 95
 Glu Ser Cys Arg Leu Lys Arg Leu Asn Phe Ser Glu Ser Pro Ser Ser
 100 105 110
 Ser Glu Asn Ile Asn Asn Asn Asn Asn Asn Glu Glu Ala Val Ser Gly
 115 120 125
 His Cys Asn Ser Ala
 130

<210> 2171
 <211> 120
 <212> PRT

<213> Pinus radiata

<400> 2171

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Arg | Cys | Lys | Thr | Gly | Gln | Ala | Gln | Gly | Val | Leu | Glu | Val | Glu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | His | Pro | Ala | Pro | Ser | Lys | Pro | Lys | Leu | Arg | Lys | Gly | Leu | Trp | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Val | Glu | Asp | Asn | Gln | Leu | Thr | Asn | Tyr | Ile | Leu | Arg | Arg | Gly | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Val | Gly | Cys | Trp | Asn | Tyr | Val | Ala | Lys | Gln | Ala | Gly | Leu | Gln | Arg | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Ile | Asn | Tyr | Leu | Arg | Pro | Gly | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Arg | His | Pro | Ile | Ser | Arg | Gln | Glu | Gln | Leu | Ile | Ile | Glu | Leu | |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gln | Ser | Ile | Leu | Gly | Asn | Arg | Trp | Ser | Gln | Ile | Ala | Ala | Gln | Leu | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Arg | Thr | Asp | Ile | Glu | Ile | Lys | | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 2172

<211> 155

<212> PRT

<213> Pinus radiata

<400> 2172

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Leu | Glu | Ser | Ser | Arg | Ile | Lys | Leu | Lys | Gln | Ile | Glu | Gln | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Glu | Arg | Val | Lys | Gln | Gln | Gly | Ile | Ser | Ile | Asn | Gly | His | Leu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | His | Asn | Gly | Ser | Gly | Ala | Ala | Ala | Phe | Asp | Met | Glu | Tyr | Gly | Arg |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Trp | Val | Glu | Glu | Gln | Asn | Arg | Gln | Ala | Arg | Glu | Leu | Arg | Ala | Ser | Leu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Gln | Ala | His | Leu | Thr | Asp | Ser | Glu | Leu | Cys | Val | Leu | Val | Asp | Asn | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ile | Ala | His | Tyr | Asp | Glu | Leu | Phe | Arg | Met | Lys | Gly | Ala | Ala | Ser | Lys |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Asp | Val | Phe | His | Leu | Met | Ser | Gly | Met | Trp | Lys | Thr | Pro | Thr | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Cys | Phe | Met | Trp | Met | Gly | Gly | Phe | Arg | Pro | Ser | Glu | Leu | Leu | Lys |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Ile | Leu | Thr | Pro | Gln | Ile | Glu | Pro | Leu | Thr | Glu | Gln | Gln | Ser | Phe | Ala |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Val | Ser | Ser | Leu | Lys | Leu | Ser | Ser | Gln | Gln | Ala | | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 2173

<211> 63

<212> PRT

<213> Pinus radiata

<400> 2173

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Arg | Gly | Lys | Ile | Gln | Met | Lys | Arg | Ile | Glu | Asn | Thr | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gln | Val | Thr | Phe | Ser | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val Gly Leu Met Ile Phe
 35 40 45
 Ser Pro Gly Gly Lys Leu Tyr Glu Phe Ala Asn Thr Ser Met Glu
 50 55 60

<210> 2174
 <211> 76
 <212> PRT
 <213> Pinus radiata

<400> 2174
 Arg Ala Arg Lys Thr Glu Ile Leu Val Thr Glu Ile Glu Gln Leu Gln
 1 5 10 15
 Arg Lys Glu Trp Ile Leu Ser Glu Glu Asn Ala Phe Leu Gly Lys Lys
 20 25 30
 Phe Val His Pro His Ser Val Ser Lys Thr Pro Gly Ser Glu Ser Gly
 35 40 45
 Ser Ile Gln Asn Ser Glu Val Glu Thr Gln Leu Val Met Arg Pro Pro
 50 55 60
 Cys Thr Asn Ala His Phe Leu Ile Asn Ser Ser His
 65 70 75

<210> 2175
 <211> 161
 <212> PRT
 <213> Eucalyptus grandis

<400> 2175
 Arg Glu Ser Ala Asn Cys Ala Ser Arg Val Ala Asp Arg Arg Glu Asn
 1 5 10 15
 Arg Arg Arg Arg Asp Met Gly Asn Gln Lys Leu Lys Trp Thr Lys Glu
 20 25 30
 Glu Glu Glu Ala Leu Leu Ala Gly Ile Ala Lys His Gly Ala Gly Lys
 35 40 45
 Trp Lys Asn Ile Leu Lys Asp Pro Glu Phe Ala Pro Ala Leu Val Asn
 50 55 60
 Arg Ser Asn Ile Asp Leu Lys Asp Lys Trp Arg Asn Leu Ser Val Gly
 65 70 75 80
 Thr Ser Gly Gln Gly Ser Arg Asp Lys Gln Arg Leu Ser Lys Val Lys
 85 90 95
 Ser Leu Met Ala Ala Pro Gln Ser Ser Thr Val Pro Leu Asn Pro Gln
 100 105 110
 Ala His Ala Ala Ser Thr Asp Val Ala Leu Val Asn Ser Ser Asn Ser
 115 120 125
 Phe Gln Asp Gly Lys Asn Tyr Ser Leu Trp Val Ser Val Leu Leu Phe
 130 135 140
 Leu Phe Ser Asn Gly Asn Leu Phe Tyr Phe Tyr Pro Leu Leu Ser Phe
 145 150 155 160
 Leu

<210> 2176
 <211> 31
 <212> PRT
 <213> Eucalyptus grandis

<400> 2176

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Gln | Ser | Ala | Arg | Ala | Leu | Leu | Ala | Ile | His | Asp | Tyr | Phe | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Arg | Ala | Leu | Ser | Ser | Leu | Trp | Leu | Ala | Arg | Pro | Arg | Glu | |
| | | | 20 | | | | | 25 | | | | | 30 | | |

<210> 2177
 <211> 191
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ser | Arg | Lys | Glu | Val | Asp | Arg | Ile | Lys | Gly | Pro | Trp | Ser | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Glu | Asp | Glu | Ala | Leu | Arg | Leu | Leu | Val | Gln | Lys | His | Gly | Pro | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Trp | Ser | Leu | Ile | Ser | Lys | Ser | Ile | Pro | Gly | Arg | Ser | Gly | Lys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Arg | Leu | Arg | Trp | Cys | Asn | Gln | Leu | Ser | Pro | Gln | Val | Glu | His | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Phe | Thr | Pro | Glu | Glu | Asp | Asp | Ile | Ile | Val | Arg | Ala | His | Ala | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Phe | Gly | Asn | Lys | Trp | Ala | Thr | Ile | Ala | Arg | Leu | Leu | Ser | Gly | Arg | Thr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asp | Asn | Ala | Ile | Lys | Asn | His | Trp | Asn | Ser | Thr | Leu | Lys | Arg | Lys | Cys |
| | | 100 | | | | | | 105 | | | | 110 | | | |
| Ser | Pro | Pro | Leu | Ser | Pro | Leu | Ala | Glu | Glu | Gly | Asn | Asn | Arg | Ala | Phe |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Asp | Ala | Ala | Ala | Gly | Tyr | Asp | Gly | Asp | Leu | Ser | Pro | Arg | Glu | Arg | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Lys | Arg | Ser | Ala | Ser | Ala | Gly | Pro | Cys | Leu | Ser | Pro | Gly | Ser | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ser | Gly | Ser | Gly | Met | Ser | Asp | Ser | Ser | Val | His | Phe | Val | Tyr | Arg | Pro |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Val | Ala | Lys | Thr | Gly | Pro | Val | Val | Pro | Pro | Thr | Val | Glu | Ala | Thr | |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 2178
 <211> 113
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Val | Ala | Gln | Leu | Arg | Val | Glu | Asn | Ser | Thr | Leu | Leu | Lys | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Asp | Ile | Ser | Gln | Lys | Tyr | Asn | Val | Ala | Ala | Val | Asp | Asn | Arg | Val |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Leu | Lys | Ala | Asp | Val | Glu | Thr | Leu | Arg | Ala | Lys | Val | Lys | Met | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Thr | Val | Lys | Arg | Val | Thr | Gly | Leu | Asn | Pro | Met | Leu | His | Val | Met |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ser | Asp | Met | Ser | Ser | Val | Gly | Val | Pro | Pro | Phe | Asp | Gly | Ser | Pro | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Thr | Ser | Ala | Asp | Ala | Ala | Val | Pro | Val | Arg | Asp | Asp | Pro | Lys | His |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gln | Phe | Tyr | Gln | Thr | Asn | Ser | Ser | Asn | Pro | Ala | Ser | Ser | Ala | Asp | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Met

<210> 2179
 <211> 314
 <212> PRT
 <213> Eucalyptus grandis

<400> 2179

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Arg | Leu | Gly | Ser | Ser | Asp | Ser | Leu | Gly | Ala | Leu | Met | Ser | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Pro | Pro | Ser | Glu | Glu | Leu | Gln | His | Ser | Pro | Arg | Asn | Gly | Asn | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Tyr | His | Ser | Arg | Asp | Leu | Gln | Ser | Met | Leu | Glu | Leu | Gly | Leu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Glu | Gly | Cys | Val | Glu | Asp | Gln | Ser | Ala | Gly | Gly | Gly | Gly | His | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | Glu | Lys | Lys | Arg | Arg | Leu | Ser | Ile | Asp | Gln | Val | Lys | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Lys | Asn | Phe | Glu | Val | Glu | Asn | Lys | Leu | Glu | Pro | Glu | Arg | Lys | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Lys | Leu | Ala | Gln | Glu | Leu | Gly | Leu | Gln | Pro | Arg | Gln | Val | Ala | Val | Trp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Gln | Asn | Arg | Arg | Ala | Arg | Trp | Lys | Thr | Lys | Gln | Leu | Glu | Arg | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Gly | Val | Leu | Lys | Ser | Ser | Tyr | Glu | Ala | Leu | Lys | Leu | Ser | Tyr | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Leu | Lys | His | Asp | Asn | Glu | Ala | Leu | His | Lys | Glu | Ile | Lys | Glu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Ser | Lys | Leu | Arg | Glu | Glu | Asp | Asp | Asn | Pro | Glu | Ser | Asn | Leu | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Lys | Glu | Glu | Val | Ile | Ile | Pro | Gly | His | Asp | Val | Ser | Asp | Lys | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Ala | Ala | Asp | Asp | Gly | Asp | Asp | Thr | Lys | Arg | Ser | Pro | Pro | Pro | |
| | | 195 | | | | | 200 | | | | 205 | | | | |
| Pro | Ile | Thr | Ala | Pro | Pro | Arg | Glu | Leu | Ser | Phe | Asn | Asn | Gly | Gly | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Asp | Gly | Ser | Ser | Asp | Ser | Asp | Ser | Ser | Ala | Ile | Val | Asn | Glu | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Ala | Ala | Thr | Ser | Ser | Ser | Ser | Pro | Asn | Pro | Ala | Val | Gln | Ser | His |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Gly | Phe | Leu | Lys | Phe | Met | Gly | Ser | Ser | Ser | Ser | Ser | Ala | Ser | Pro |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Pro | Pro | Ser | Pro | Pro | Ala | Ser | Phe | Gly | Gly | Cys | Phe | Ser | Phe | Gln | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gln | Arg | Ala | Tyr | Gln | Pro | Gln | Pro | Gln | Pro | Pro | His | His | His | His | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Ser | Pro | Tyr | Val | Lys | Met | Glu | Glu | His | | | | | | |
| 305 | | | | | 310 | | | | | | | | | | |

<210> 2180
 <211> 94
 <212> PRT
 <213> Eucalyptus grandis

<400> 2180

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Tyr | Lys | Ser | Ala | Cys | Ser | Asp | Ser | Ser | His | Pro | Gln | Ser | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

Ser Asp Val Asn Thr Gln Phe Tyr Gln Gln Glu Ala Ser Lys Leu Arg
20 25 30
Arg Gln Ile Arg Glu Ile Gln Val Ser Asp Arg His Leu Leu Gly Glu
35 40 45
Gly Ile Ser Asp Leu Ser Phe Lys Asp Leu Lys Asn Leu Glu Ser Lys
50 55 60
Leu Glu Lys Ser Ile Ser Arg Val Arg Ser Lys Lys Asn Glu Met Leu
65 70 75 80
Phe Ala Glu Ile Glu Tyr Met Gln Lys Arg Gly Leu Val Gln
85 90

<210> 2181
<211> 83
<212> PRT
<213> Eucalyptus grandis

<400> 2181
Glu Asn Lys Ile Asn Arg Gln Val Thr Phe Ala Lys Arg Arg Asn Gly
1 5 10 15
Leu Leu Lys Lys Ala Tyr Glu Leu Ser Val Leu Cys Asp Ala Glu Val
20 25 30
Ala Leu Ile Ile Phe Ser Thr Arg Gly Lys Leu Tyr Glu Phe Cys Ser
35 40 45
Ser Pro Ser Met Leu Lys Thr Leu Asp Arg Tyr Gln Lys Cys Ser Tyr
50 55 60
Gly Ser Val Glu Val Asn Lys Pro Ser Lys Glu Leu Glu Asn Ala Tyr
65 70 75 80
Arg Glu Tyr

<210> 2182
<211> 108
<212> PRT
<213> Eucalyptus grandis

<400> 2182
Met Gly Arg Gly Lys Ile Glu Ile Gln Lys Ile Glu Asn Asp Thr Asn
1 5 10 15
Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala
20 25 30
His Glu Leu Thr Val Leu Cys Asp Ala Arg Val Ser Ile Leu Met Leu
35 40 45
Ser Gly Asn Lys Lys Leu His Glu Tyr Ile Ser Pro Thr Thr Thr Thr
50 55 60
Lys Arg Met Ile Asp Asp Tyr Gln Lys Ala Leu Gly Ile Asp Leu Trp
65 70 75 80
Thr Thr His Tyr Asp Arg Met Gln Glu Glu Leu Arg Lys Leu Lys Glu
85 90 95
Val Asn Asn Asn Phe Arg Lys Glu Ile Arg Gln Ile
100 105

<210> 2183
<211> 40
<212> PRT
<213> Eucalyptus grandis

<400> 2183

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Leu | Met | Gly | Glu | Asp | Leu | Gly | Thr | Leu | Asn | Ser | Lys | Glu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Gln | Leu | Glu | Arg | Gln | Leu | Glu | Ala | Ser | Leu | Lys | His | Ile | Arg | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Lys | Thr | Gln | Cys | Met | Leu | Asp | | | | | | | | |
| | | 35 | | | | | 40 | | | | | | | | |

<210> 2184
 <211> 161
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Phe | Pro | Thr | Gln | Ala | Thr | Pro | Glu | Glu | Ser | Pro | Gln | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Gly | Arg | Gly | Lys | Ile | Glu | Ile | Lys | Arg | Ile | Glu | Asn | Thr | Thr | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gln | Val | Thr | Phe | Cys | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Glu | Leu | Ser | Val | Leu | Cys | Glu | Ala | Glu | Val | Ala | Leu | Ile | Val | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Arg | Gly | Arg | Leu | Tyr | Glu | Tyr | Ala | Asn | Asp | Ser | Val | Lys | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ile | Glu | Arg | Tyr | Lys | Lys | Ala | Cys | Ser | Asp | Ser | Ser | Ser | Ser | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Val | Ser | Glu | Ala | Asn | Val | Gln | Phe | Tyr | Gln | Gln | Glu | Ser | Ala | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Gln | Gln | Gln | Ile | Asn | Asn | Met | Gln | Asn | Asn | Asn | Arg | Gln | Leu | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Asp | Ser | Ile | Ala | Gly | Met | Asn | Met | Lys | Asp | Met | Lys | Thr | Thr | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Lys | Leu | Glu | Lys | Ala | Ile | Ala | Lys | Ile | Arg | Ala | Lys | Lys | Asn | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | | | | | | | | | | | | | | | |

<210> 2185
 <211> 92
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | His | Lys | Glu | Gln | Met | Leu | Val | Glu | Ala | Asn | Arg | Glu | Leu | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Leu | Glu | Glu | Ser | Asn | Thr | Arg | Ile | Pro | Leu | Arg | Leu | Gly | Trp | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Glu | Asp | His | Asn | Asn | Ile | Ser | Tyr | Ser | Arg | Leu | Pro | Met | Gln | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Gly | Leu | Ile | Phe | Gln | Pro | Leu | Gly | Gly | Asn | Pro | Thr | Leu | Gln | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Tyr | Asn | Pro | Ala | Gly | Ser | Asn | Glu | Leu | Asn | Val | Ser | Ala | Ala | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | His | Pro | Asn | Gly | Phe | Ile | Pro | Gly | Trp | Met | Leu | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 2186
 <211> 113

<212> PRT
<213> Eucalyptus grandis

<400> 2186
Gly Ser Lys Glu Leu Glu Ser Leu Glu Arg Gln Leu Asp Gly Ser Leu
1 5 10 15
Lys Gln Ile Arg Ser Arg Arg Thr Gln Tyr Met Leu Asp Lys Leu Thr
20 25 30
Asp Leu Gln His Arg Glu Gln Leu Leu His Glu Ala Asn Arg Thr Leu
35 40 45
Asn Gln Arg Leu Met Glu Gly Tyr Gln Val Asn Ala Leu Gln Leu Asn
50 55 60
Gln His Ala Glu Glu Val Gly Gly Tyr Gly His Pro Pro Pro Pro Pro
65 70 75 80
Leu Pro Pro Gln Pro Leu Ala Gln Pro His Ser Glu Ala Phe Phe Asn
85 90 95
Pro Leu Glu Cys Glu Pro Thr Leu Gln Met Gly Tyr Gln Pro Asp Pro
100 105 110
Val

<210> 2187
<211> 309
<212> PRT
<213> Eucalyptus grandis

<400> 2187
Met Thr Arg Arg Cys Ser His Cys Cys Asn Lys Gly His Asn Ser Arg
1 5 10 15
Thr Cys Pro Val Arg Gly Gly Gly Gly Asp Gly Gly Gly Ala Ala Ala
20 25 30
Ala Pro Ser Ser Ser Ser Pro Ser Thr Ser Ser Ser Gly Ala Ala Ala
35 40 45
Ala Ala Ala Ala Ser Ala Ser Gly Gly Gly Val Lys Leu Phe Gly Val
50 55 60
Arg Leu Thr Asp Gly Ser Ile Met Lys Lys Ser Ala Ser Val Gly Cys
65 70 75 80
Leu Ser Ala Ala His Tyr His Ser Ser Ser Ser Ala Ala Ala Ser Pro
85 90 95
Asn Pro Gly Ser Ser Pro Ile Asp Gly Ser Asp Gly Tyr Leu Ser Asp
100 105 110
Asp Pro Ala Pro Gly Ser Arg Ser Ser Asn Arg Arg Val Glu Arg Lys
115 120 125
Lys Gly Asn Pro Trp Thr Glu Glu His Arg Arg Phe Leu Ile Gly
130 135 140
Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asp Phe
145 150 155 160
Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys Tyr
165 170 175
Tyr Ile Arg Gln Ser Asn Ala Gly Arg Arg Lys Arg Arg Ser Ser Leu
180 185 190
Phe Asp Met Ala Pro Asp Met Ala Thr Ala Asp Gln Pro Ser His Pro
195 200 205
Glu Glu Thr Phe Leu Pro Pro Leu Val Arg Leu Asn Asp Asp Thr Asn
210 215 220
Ser Thr Thr Ser Thr Ser Met Gly Leu Asp Leu Glu Arg Thr Pro Met
225 230 235 240

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ser | His | Pro | Glu | Thr | Ser | Glu | Gly | Gly | Gly | Asp | Val | Ala | Met |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Ser | Ile | Asp | Gln | Val | Pro | Leu | Val | Pro | Cys | Tyr | Phe | Pro | Tyr | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Pro | Leu | Pro | Phe | Pro | Met | Trp | Pro | Pro | Asn | Met | Ala | Pro | Pro | Glu |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Asp | Gly | Arg | Val | Val | Glu | Thr | Ser | His | His | Arg | Val | Leu | Lys | Pro | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Val | Ile | Pro | Lys | | | | | | | | | | | |
| 305 | | | | | | | | | | | | | | | |

<210> 2188
 <211> 123
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Asp | Thr | Ser | Ser | Ser | Pro | Pro | Thr | Leu | Leu | Glu | Ser | Val | Asp | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Ile | Leu | Ser | Pro | Ala | Arg | Thr | Gly | Lys | Ala | Glu | Ser | Glu | Cys | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Pro | Arg | Asn | Ser | Gly | Leu | Leu | Asp | Ala | Leu | Val | His | Glu | Ser | Lys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Thr | Met | Ser | Ser | Ala | Lys | Asn | Asn | Ser | Pro | Glu | Lys | Ser | Thr | Asn | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Leu | Thr | Pro | Gly | Asp | Ile | Ser | Ser | Ser | Thr | Leu | Asp | Ile | Cys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Lys | Ser | Glu | Trp | Glu | Glu | Tyr | Gly | Asp | Pro | Ile | Ser | Pro | Pro | Gly | His |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Ala | Thr | Ser | Val | Phe | Asn | Gly | Cys | Thr | Pro | Leu | Ser | Thr | Ser | Gly |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ser | Ser | Leu | Asp | Glu | Gln | Pro | Tyr | Pro | Asp | Thr | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 2189
 <211> 136
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ile | Arg | Arg | Lys | Leu | Leu | Asn | Arg | Gly | Ile | Asp | Pro | Ala | Thr | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Pro | Leu | Asn | Glu | Pro | Ala | Gln | Asp | Ala | Thr | Thr | Ile | Ser | Phe | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Pro | Ser | Lys | Gln | Glu | Pro | Arg | Asp | Asp | Ala | Ile | Ala | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Tyr | Lys | Asn | Glu | Asn | Asn | Pro | Thr | Thr | Thr | Ala | Ala | Thr | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Glu | Lys | Cys | Pro | Asp | Leu | Asn | Leu | Glu | Leu | Arg | Ile | Ser | Pro | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Cys | Gln | Gln | Gln | His | Gln | Pro | Asp | Ala | Ser | Met | Gly | Met | Val | Glu | Gly |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Asn | His | Cys | Phe | Ala | Cys | Ser | Leu | Gly | Leu | Gln | Asn | Ser | Lys | Glu | Cys |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ser | Cys | Arg | Arg | Gly | Ala | Ser | Gly | Gly | Ser | Ser | Ala | His | Gly | Gly | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Phe | Leu | Gly | Leu | Lys | Thr | Ser | | | | | | | | |

130

135

<210> 2190
 <211> 109
 <212> PRT
 <213> Eucalyptus grandis

<400> 2190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Phe | Pro | Ser | Glu | Phe | Ser | Glu | Ala | Ser | Ser | Gln | Lys | Arg | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Gly | Arg | Gly | Lys | Ile | Glu | Ile | Lys | Arg | Ile | Glu | Asn | Thr | Thr | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gln | Val | Thr | Phe | Cys | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Glu | Leu | Ser | Val | Leu | Cys | Asp | Ala | Glu | Val | Ala | Leu | Ile | Val | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Arg | Gly | Arg | Leu | Tyr | Glu | Tyr | Ala | Asn | Asn | Ser | Val | Arg | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ile | Glu | Arg | Tyr | Lys | Lys | Ala | Ser | Ser | Asp | Ser | Ser | Thr | Ser | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Pro | Phe | Pro | Glu | Val | Glu | His | Ser | Ser | Phe | Ile | Gln | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 2191
 <211> 116
 <212> PRT
 <213> Eucalyptus grandis

<400> 2191

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Gly | Arg | Val | Glu | Leu | Lys | Arg | Ile | Glu | Asn | Lys | Ile | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gln | Val | Thr | Phe | Ser | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Glu | Leu | Ser | Val | Leu | Cys | Asp | Val | Glu | Val | Ala | Leu | Leu | Ile | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ser | Arg | Gly | Lys | Leu | Tyr | Glu | Phe | Gly | Ser | Ala | Gly | Pro | Ser | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Asn | Lys | Thr | Leu | Glu | Arg | Tyr | Gln | Arg | Asp | Asn | Phe | Thr | Pro | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Asn | Val | Ala | Glu | His | Glu | Thr | Gln | Gln | Asn | Trp | Phe | Gln | Glu | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Lys | Leu | Lys | Ala | Lys | Tyr | Glu | Leu | Phe | Asn | Lys | Leu | Gln | Lys | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Leu | Gly | Lys | | | | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 2192
 <211> 98
 <212> PRT
 <213> Eucalyptus grandis

<400> 2192

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Arg | Gly | Lys | Val | Gln | Met | Lys | Arg | Ile | Glu | Asn | Pro | Val | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gln | Val | Thr | Phe | Cys | Lys | Arg | Arg | Ala | Gly | Leu | Leu | Lys | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Glu | Leu | Ser | Val | Leu | Cys | Asp | Ala | Asp | Ile | Gly | Leu | Phe | Ile | Phe |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | 35 | | | | | 40 | | | | 45 | | | | | | | | |
| Ser | Pro | His | Gly | Lys | Leu | Tyr | Glu | Leu | Ala | Thr | Lys | Gly | Thr | Met | Lys | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |
| Gly | Leu | Ile | Glu | Arg | Tyr | Met | Lys | Thr | Thr | Gln | Ser | Gln | Ala | Ala | Leu | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | |
| Thr | Glu | Glu | Ala | Thr | Pro | Ser | Gln | Pro | Leu | Asp | Ala | Lys | Glu | Glu | Ile | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Asn | Ile | | | | | | | | | | | | | | | | | | |

<210> 2193
 <211> 198
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
| Met | Gly | Arg | Gly | Lys | Val | Glu | Leu | Lys | Arg | Ile | Glu | Asn | Lys | Ile | Asn | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | |
| Arg | Gln | Val | Thr | Phe | Ala | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys | Ala | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Tyr | Glu | Leu | Ser | Val | Leu | Cys | Asp | Ala | Glu | Val | Ala | Leu | Ile | Ile | Phe | | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | | |
| Ser | Asn | Arg | Gly | Lys | Leu | Tyr | Glu | Phe | Cys | Ser | Ser | Ser | Ser | Met | Met | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |
| Lys | Thr | Ile | Glu | Lys | Tyr | Gln | Lys | Cys | Ser | Tyr | Gly | Ser | Leu | Glu | Thr | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | |
| Asn | Cys | Ser | Ile | Asn | Glu | Met | Gln | Asn | Ser | Tyr | Gln | Asp | Tyr | Leu | Lys | | | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | | | |
| Leu | Lys | Thr | Arg | Val | Glu | Val | Leu | Gln | Arg | Ser | Gln | Arg | Asn | Leu | Leu | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Gly | Glu | Glu | Leu | Gly | Pro | Leu | Asn | Ser | Lys | Glu | Leu | Glu | Gln | Leu | Glu | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| His | Gln | Leu | Glu | Asn | Ser | Leu | Lys | Gln | Ile | Arg | Ser | Ala | Lys | Thr | Gln | | | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | | | |
| Phe | Met | Phe | Asp | Gln | Leu | Ala | His | Leu | Gln | His | Lys | Glu | Gln | Met | Leu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Val | Glu | Ala | Asn | Arg | Glu | Leu | Arg | Lys | Lys | Leu | Glu | Glu | Ser | Asn | Thr | | | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | | | |
| Arg | Ile | Pro | Leu | Arg | Leu | Gly | Trp | Glu | Ala | Glu | Asp | His | Asn | Asn | Ile | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | |
| Ser | Tyr | Ser | Arg | Leu | Pro | | | | | | | | | | | | | | |
| | | | 195 | | | | | | | | | | | | | | | | |

<210> 2194
 <211> 153
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
| Met | Arg | Lys | Pro | Cys | Cys | Asp | Lys | Arg | Asp | Thr | Asn | Lys | Gly | Ala | Trp | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | |
| Ser | Lys | Gln | Glu | Asp | Gln | Lys | Leu | Ile | Asp | Tyr | Ile | Gln | Lys | His | Gly | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Glu | Gly | Ser | Trp | Arg | Thr | Leu | Pro | Gln | Ala | Ala | Gly | Leu | Leu | Arg | Cys | | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | | |
| Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Ile | Asn | Tyr | Leu | Arg | Pro | Asp | Leu | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |

Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile Ile Lys Leu
 65 70 75 80
 His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro
 85 90 95
 Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser His Leu Arg
 100 105 110
 Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His Arg Leu Asn
 115 120 125
 Gln Asn Leu Pro Arg Ser Gln Thr Arg Met Pro Arg Gln His Phe Leu
 130 135 140
 Ile Gln Tyr Glu Asp His Met Thr Leu
 145 150

<210> 2195
 <211> 104
 <212> PRT
 <213> Eucalyptus grandis

<400> 2195
 Glu Ala Leu Gln Gln Ser Leu Val Asp Thr Leu Ser Ser Thr Thr Leu
 1 5 10 15
 Ser Pro Thr Gly Ser Gly Asn Val Ala Glu Tyr Met Gly Gln Met Ala
 20 25 30
 Ile Ala Met Gly Lys Leu Ala Thr Leu Glu Asn Phe Val His Gln Ala
 35 40 45
 Asp Leu Leu Arg Gln Gln Thr Leu Gln Gln Met His Arg Ile Leu Thr
 50 55 60
 Thr Arg Gln Ala Ala Arg Ala Leu Leu Val Ile Asn Asp Tyr Ile Ser
 65 70 75 80
 Arg Leu Arg Ala Leu Ser Ser Leu Trp Leu Ala Arg Pro Arg Thr Glu
 85 90 95
 Asn Ile Cys Ser Ala Lys Leu Phe
 100

<210> 2196
 <211> 25
 <212> PRT
 <213> Eucalyptus grandis

<400> 2196
 Asp Pro Leu Met Lys Pro Trp Gln Ile Pro Cys Pro Ile Gln Pro Ile
 1 5 10 15
 Ile Ala Ser Ala Asp Leu Phe Glu Cys
 20 25

<210> 2197
 <211> 87
 <212> PRT
 <213> Eucalyptus grandis

<400> 2197
 Met Gly Arg Arg Lys Ile Glu Ile Gln Pro Ile Thr His Glu Arg Asn
 1 5 10 15
 Arg Ser Val Thr Phe Leu Lys Arg Lys Asn Gly Leu Phe Lys Lys Ala
 20 25 30
 Tyr Glu Leu Gly Val Leu Cys Ser Val Asp Val Ala Val Ile Ile Phe
 35 40 45

Glu Asp Arg Pro Gly His Ser Pro Lys Leu Tyr Gln Tyr Ser Ser Arg
 50 55 60
 Gly Ile Gln Asp Ile Val Gln Arg His Leu His His Asp Gly Glu Thr
 65 70 75 80
 Asp Asn Arg Gly Pro Gly Asp
 85

<210> 2198
 <211> 107
 <212> PRT
 <213> Eucalyptus grandis

<400> 2198
 Arg Asp Arg Thr Phe Leu Val Gly Leu Glu Lys Leu Gly Lys Gly Asp
 1 5 10 15
 Trp Arg Gly Ile Ser Arg Ser Tyr Val Thr Thr Arg Thr Pro Ala Gln
 20 25 30
 Val Ala Ser His Ala Gln Lys Tyr Phe Leu Arg Gln Val Ser Phe Asn
 35 40 45
 Lys Lys Lys Arg Arg Ser Ser Leu Phe Asp Met Val Lys Asn Gln Cys
 50 55 60
 Ser Tyr Lys Leu Leu Pro Ser Tyr Arg Leu Ser Ser Ile Ser Leu Met
 65 70 75 80
 Gly Phe Asp Lys Phe Leu Leu Tyr Lys Val Asp Val Lys Thr Ala Ala
 85 90 95
 Gly Asp Arg Leu Gly Ser Leu Thr Ala Lys Pro
 100 105

<210> 2199
 <211> 107
 <212> PRT
 <213> Eucalyptus grandis

<400> 2199
 Met Thr Leu Glu Glu Phe Leu Val Arg Ala Gly Val Val Arg Glu Asp
 1 5 10 15
 Thr Gln Met Met Ala Arg Pro Gly Asp Asn Gly Val His Glu Glu Met
 20 25 30
 Ser Gln Phe Thr Ser Asn Gly Leu Ala Ser Ser Ala Ala Ala Gly Asn
 35 40 45
 Asp Phe Ile Phe Ser Ser Lys Pro Ala Gly Ser Ser Leu Asp Phe Ile
 50 55 60
 Gly Thr Arg Pro Thr Gln Leu Gln Gln Gln Pro Gln Pro Gln Pro Leu
 65 70 75 80
 Glu Pro Pro Ala Pro Leu Phe Pro Lys Pro Glu Thr Val Ser Phe Ala
 85 90 95
 Thr Ser Val His Leu Pro Asn Thr Ala Ser Tyr
 100 105

<210> 2200
 <211> 150
 <212> PRT
 <213> Eucalyptus grandis

<400> 2200
 Ala Asn Ala Pro Leu Arg Ile Ala Met Asn Ser Asn Ala Ser Ser Asn
 1 5 10 15

Pro Gln Ser Met Ala Thr Ser Thr Thr Ser Ala Thr Thr Pro Ala Ala
20 25 30
Gly Gly Asp Gly Gly Lys Lys Val Arg Lys Pro Tyr Thr Ile Thr Lys
35 40 45
Ser Arg Glu Ser Trp Thr Glu Glu Glu His Asp Lys Phe Leu Glu Ala
50 55 60
Leu Gln Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Asp Phe Val Gly
65 70 75 80
Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu
85 90 95
Lys Val Gln Lys Asn Gly Ala Val Ala His Val Pro Pro Pro Arg Pro
100 105 110
Lys Arg Lys Ala Ala His Pro Tyr Pro Gln Lys Ala Ser Lys Asn Val
115 120 125
Leu Val Pro Leu Gln Ala Ser Met Ala Gln Pro Ser Ser Thr Asn Pro
130 135 140
Ala Phe Thr Ile Thr Pro
145 150

<210> 2201
<211> 171
<212> PRT
<213> Eucalyptus grandis

<400> 2201
Met Gly Arg Ser Pro Cys Cys Glu Ser Glu His Met Asn Lys Gly Ala
1 5 10 15
Trp Ser Lys Glu Glu Asp Glu Arg Leu Ile Ala Tyr Ile Lys Arg His
20 25 30
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu Arg Pro Asp
50 55 60
Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile Ile Thr
65 70 75 80
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala Arg Leu
85 90 95
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile
100 105 110
Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His Arg Pro
115 120 125
Leu Arg Leu His Gln His Cys Trp Cys Trp Cys Cys His Phe Thr
130 135 140
Leu Ser Val Leu Thr Leu Thr Thr Ala Ala Thr Arg Pro Arg Leu Thr
145 150 155 160
Arg Arg Leu Val Lys Asn Tyr His His His Gln
165 170

<210> 2202
<211> 98
<212> PRT
<213> Eucalyptus grandis

<400> 2202
Met Asn Ser Pro Leu Ala Gln Leu Val Asn Pro Arg Arg Met His Thr
1 5 10 15
Tyr Glu Pro Phe Asp Gln Phe Pro Met Trp Gly Asp Thr Phe Lys Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Asp | Lys | Val | Lys | Asn | Leu | Glu | Ala | Ser | Ser | Ser | Val | Ile | Val | His | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Asp | Asp | Gly | Leu | Asp | Lys | Lys | Phe | Glu | Tyr | Val | Ser | His | Glu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Asn | Ser | Ser | Ser | Arg | Ser | Asp | Gln | Glu | Ala | Asn | Arg | Pro | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Val | Gln | Arg | Arg | Leu | Ala | Gln | Asn | Arg | Glu | Ala | Ala | Arg | Lys | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | | | | | | | | | | | | | | |

<210> 2203
 <211> 111
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | | | | | | | | |
| Met | Asn | Ser | Pro | Leu | Ala | Gln | Leu | Val | Asn | Pro | Arg | Arg | Met | His | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Glu | Pro | Phe | Asp | Gln | Phe | Pro | Met | Trp | Gly | Asp | Thr | Phe | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Lys | Val | Lys | Asn | Leu | Glu | Ala | Ser | Ser | Ser | Val | Ile | Val | His | Ala |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Val | Asp | Asp | Gly | Leu | Asp | Lys | Lys | Phe | Glu | Tyr | Val | Ser | His | Glu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Asn | Ser | Ser | Ser | Arg | Ser | Asp | Gln | Glu | Ala | Asn | Arg | Pro | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Val | Gln | Arg | Arg | Leu | Ala | Gln | Asn | Arg | Glu | Ala | Ala | Arg | Lys | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Arg | Lys | Lys | Lys | Tyr | Val | Gln | Gln | Leu | Glu | Ser | Ser | Arg | |
| | | | 100 | | | | | 105 | | | | | | 110 | |

<210> 2204
 <211> 162
 <212> PRT
 <213> Eucalyptus grandis

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | | | | | | | | | | |
| Met | Ala | Ser | Ser | Ser | Ser | Val | Ala | Ser | Ala | Arg | Lys | Asp | Ala | Asp | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Lys | Gly | Pro | Trp | Ser | Pro | Glu | Glu | Asp | Glu | Ala | Leu | Gln | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Gln | Ser | Tyr | Gly | Pro | Arg | Asn | Trp | Ser | Leu | Ile | Ser | Lys | Ser | Ile |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Pro | Gly | Arg | Ser | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Cys | Asn | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Pro | Gln | Val | Glu | His | Arg | Pro | Phe | Thr | Pro | Glu | Glu | Asp | Glu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Val | Arg | Ala | His | Ala | Arg | Phe | Gly | Asn | Lys | Trp | Ala | Thr | Ile | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Leu | Asn | Gly | Arg | Thr | Asp | Asn | Ala | Val | Lys | Asn | His | Trp | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Thr | Leu | Lys | Arg | Lys | Cys | Ser | Ser | Thr | Cys | Ser | Ala | Gly | Gly | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Ala | Asp | Ala | Leu | Ala | Glu | Gln | Gln | Pro | Leu | Lys | Arg | Ser | Ala | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |

Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe
 145 150 155 160
 Ser Pro

<210> 2205
 <211> 92
 <212> PRT
 <213> Eucalyptus grandis

<400> 2205
 Met Ala Lys Glu Lys Ile Lys Lys Ile Asp Asn Leu Thr Ala
 1 5 10 15
 Arg Gln Val Thr Phe Ser Lys Arg Arg Gly Leu Ile Lys Lys Ala
 20 25 30
 Glu Glu Leu Ser Val Leu Cys Asp Ala Asp Val Ser Leu Ile Val Phe
 35 40 45
 Ser Ala Thr Gly Lys Leu Tyr Asp Phe Ser Ser Ser Arg Gln Met Lys
 50 55 60
 Gly Glu Asp Leu Glu Gly Leu Asn Val Glu Glu Leu Asp Gln Leu Glu
 65 70 75 80
 Lys Lys Leu Glu Ala Gly Leu Ser Leu Val Ile Lys
 85 90

<210> 2206
 <211> 148
 <212> PRT
 <213> Eucalyptus grandis

<400> 2206
 Met Arg Lys Pro Asp Ala Ser Gly Lys Asn Ser Ser Asn Ser Asn Ala
 1 5 10 15
 Asn Lys Leu Arg Lys Gly Leu Trp Ser Pro Glu Glu Asp Asp Lys Leu
 20 25 30
 Met Asn Tyr Met Leu Asn Asn Gly Gln Gly Cys Trp Ser Asp Val Ala
 35 40 45
 Arg Asn Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp
 50 55 60
 Ile Asn Tyr Leu Arg Pro Asp Leu Lys Arg Gly Ala Phe Ser Pro Gln
 65 70 75 80
 Glu Glu Glu Leu Ile Ile His Leu His Ser Ile Leu Gly Asn Arg Trp
 85 90 95
 Ser Gln Ile Ala Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys
 100 105 110
 Asn Phe Trp Asn Ser Thr Ile Lys Arg Ser Arg Thr Arg His His
 115 120 125
 Leu Leu Val Asp Thr Arg Gln Thr Arg Ala Ile Leu Leu Ala Ser Asp
 130 135 140
 Val Lys Asp Val
 145

<210> 2207
 <211> 73
 <212> PRT
 <213> Eucalyptus grandis

<400> 2207

100 105 110
 Arg Glu Gln
 115
 <210> 2210
 <211> 192
 <212> PRT
 <213> Eucalyptus grandis
 <400> 2210
 Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn
 20 25 30
 Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp
 50 55 60
 Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val Ile Asp
 65 70 75 80
 Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala Arg Leu
 85 90 95
 Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr His Ile
 100 105 110
 Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His Glu Pro
 115 120 125
 Leu Asn Lys Pro Gln Lys Thr Pro Ser Glu His Asp Pro Glu Ala Ser
 130 135 140
 Leu Ser Ser Ser Gln Ala Asp Pro Thr Ser Glu Ser Pro Ala Asn Thr
 145 150 155 160
 His Gln Pro Asn Asn Ala His Ala Asp Glu Val Gln Leu Val Leu Val
 165 170 175
 Leu Pro Val Gly Leu Val Arg Arg Glu Leu Leu Leu Arg Gln Gly Arg
 180 185 190

<210> 2211
 <211> 89
 <212> PRT
 <213> Pinus radiata

<400> 2211
 Leu Ser Arg Asn Met Asp Asp Val Phe Val Gln Arg Cys Asn Arg Asn
 1 5 10 15
 Phe Thr Ala Arg Asp Arg Leu Ile Ser Lys Glu Arg Arg Asn Phe Gly
 20 25 30
 Trp Val Cys Gly Val Thr Glu Glu Glu Glu Leu Ile Ile Arg Met
 35 40 45
 Tyr Lys Leu Val Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro
 50 55 60
 Gly Arg Lys Ala Glu Glu Ile Glu Arg Tyr Trp Lys Met Arg Ser Ile
 65 70 75 80
 Asn Ala Ala Pro Leu Lys Pro Asn Thr
 85

<210> 2212
 <211> 237
 <212> PRT

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Arg | Lys | Tyr | Gly | Lys | Gly | Asp | Trp | Arg | Ser | Ile | Ser | Arg | Asn |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Phe | Val | Val | Ser | Arg | Thr | Pro | Thr | Gln | Val | Ala | Ser | His | Ala | Gln | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Tyr | Ile | Arg | Leu | Gly | Ser | Asp | Asn | Lys | Asn | Lys | Arg | Arg | Ser | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | His | Asp | Ile | Thr | Thr | Val | His | Gly | Thr | Asp | Arg | Met | Pro | Ser | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Leu | His | Val | Ser | Asn | Arg | Gln | Thr | Asn | Ser | Pro | Ser | Thr | Gln | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Met | Asn | His | Ser | Pro | Cys | Leu | Asp | Ile | Ser | Ile | Ser | Asp | Phe | Thr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Arg | Thr | Ser | Asn | Lys | Leu | Phe | Gly | Thr | Ser | Asn | Arg | Trp | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 2232

<211> 150

<212> PRT

<213> Pinus radiata

<400> 2232

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Arg | Lys | Cys | Ser | His | Cys | Gly | Asn | Asn | Gly | His | Asn | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Cys | Pro | Asn | Arg | Gly | Gly | Val | Lys | Leu | Phe | Gly | Val | Arg | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Gly | Pro | Ile | Arg | Lys | Ser | Ala | Ser | Met | Gly | Asn | Leu | Met | Met | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Asn | Pro | Ser | Ser | Pro | Ala | Asp | Pro | Ser | Glu | Pro | Ala | Ser | Ala | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ser | Gly | Tyr | Leu | Ser | Asp | Gly | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Glu | Ala | Ser | Thr | Ser | Ser | Asn | Ser | Arg | Glu | Arg | Lys | Lys | Gly | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Trp | Thr | Glu | Glu | Glu | His | Arg | Met | Phe | Leu | Leu | Gly | Leu | Gln | Lys |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Leu | Gly | Lys | Gly | Asp | Trp | Arg | Gly | Ile | Ala | Arg | Asn | Phe | Val | Ile | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Thr | Pro | Thr | Gln | Val | Ala | Ser | His | Ala | Gln | Lys | Tyr | Phe | Ile | Arg |
| | | 130 | | | | 135 | | | | | | 140 | | | |
| Gln | Ser | Asn | Met | Thr | Arg | | | | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | |

<210> 2233

<211> 102

<212> PRT

<213> Pinus radiata

<400> 2233

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Met | Ser | Leu | Pro | Ser | Asn | Val | Leu | Thr | Leu | Ser | Ala | Asp | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ser | Asn | Ser | Asn | Ser | Ile | Ser | Ser | Ser | Gly | Asp | Glu | Leu | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Val | Arg | Lys | Pro | Tyr | Thr | Ile | Thr | Lys | Gln | Arg | Glu | Arg | Trp | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Asp | Glu | His | Leu | Lys | Phe | Leu | Glu | Ala | Leu | Lys | Met | Tyr | Gly | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Trp | Arg | Arg | Ile | Glu | Glu | His | Ile | Gly | Thr | Lys | Thr | Ala | Val | Gln |

65 70 75 80
 Ile Arg Ser His Ala Gln Lys Phe Phe Ser Lys Leu Val Arg Gly Ser
 85 90 95
 Ser Asn Lys Gly Val Ser
 100

<210> 2234
 <211> 85
 <212> PRT
 <213> Pinus radiata

<400> 2234
 Gly Ile Asp Met Asn Arg Gly Pro Ala Thr Asn Glu Ser Glu Tyr Ser
 1 5 10 15
 Ser Val Phe Gln Ala Asp Ala Leu Arg Thr Ile Asp Thr Gly Ser Val
 20 25 30
 Val Val Lys Arg Glu Arg Glu Arg Thr Phe Glu Leu Glu Ala Glu Arg
 35 40 45
 Asp Arg Thr Cys Asp Val Ser Ser Arg Thr Ser Asp Glu Glu Glu Ile
 50 55 60
 Gly Ser Thr Arg Lys Lys Leu Arg Leu Ser Lys Glu Gln Ser Ala Leu
 65 70 75 80
 Leu Glu Glu Ser Phe
 85

<210> 2235
 <211> 115
 <212> PRT
 <213> Pinus radiata

<400> 2235
 Asn Leu Glu Ser Leu Thr Leu Lys Glu Leu Gln Gln Leu Glu Lys Gln
 1 5 10 15
 Leu Gly Arg Ala Ile Lys Lys Ile Tyr Asn Lys Lys Met Lys Ile Ile
 20 25 30
 Ser Gln Cys Cys Lys Ser Leu Ser Glu Lys Val Arg Ser Leu Glu Glu
 35 40 45
 Glu Asn Ser Glu Leu Leu Thr Lys Leu Ile Pro Arg Ala Asp Ser Ser
 50 55 60
 Thr Ser Gly Ala Ala Leu Phe Val Asp Thr Ser Met Pro Lys Ser His
 65 70 75 80
 Ser Ala Thr Glu Ala Trp Arg Gln Leu Leu Gln Arg Val Leu Val Thr
 85 90 95
 Ala Ala Lys Met Ala Thr Thr Pro Pro Ala Arg His Ser Asn Ser Arg
 100 105 110
 Pro Asn His
 115

<210> 2236
 <211> 88
 <212> PRT
 <213> Pinus radiata

<400> 2236
 Gly Lys Ala Thr Ser Gly Ser Ala Asn Glu Ala Met Ser Gln Ser Gly
 1 5 10 15
 Asp Ser Gly Ser Asp Gly Ser Ser Glu Gly Ser Glu Glu Tyr Asn Thr

<211> 105
 <212> PRT
 <213> Pinus radiata

<400> 2239
 Met Gly Arg Gly Lys Ile Glu Ile Lys Met Ile Glu Asn Thr Ala Asn
 1 5 10 15
 Arg Gln Val Thr Phe Ser Lys Arg Lys Gly Gly Leu Leu Lys Lys Ala
 20 25 30
 His Glu Leu Ser Val Leu Cys Asn Ala Glu Ile Ala Leu Ile Val Phe
 35 40 45
 Ser Asn Thr Gly Lys Leu His Asp Trp Ser Ser Ser Ser Met Lys Lys
 50 55 60
 Val Met Glu Lys Tyr Gln Lys Ser Asp Gln Gly Leu Gly Leu Met Asp
 65 70 75 80
 Tyr Gln Gln Gln Gln Leu Leu Cys Glu Met Lys Arg Ile Thr Lys Glu
 85 90 95
 Asn Glu Ser Leu Arg Ala Arg Leu Arg
 100 105

<210> 2240
 <211> 78
 <212> PRT
 <213> Pinus radiata

<400> 2240
 Met Ser Asn Gly Arg Leu Cys Glu Asp Leu Asp Arg Ile Lys Gly Pro
 1 5 10 15
 Trp Ser Pro Glu Glu Asp Ala Ser Leu Gln Arg Leu Val Gln Lys Tyr
 20 25 30
 Gly Pro Arg Asn Trp Thr Leu Ile Ser Lys Gly Ile Pro Gly Arg Ser
 35 40 45
 Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser Pro Gln Val
 50 55 60
 Glu His Arg Pro Phe Thr Pro Ser Glu Asp Ala Ala Ile Leu
 65 70 75

<210> 2241
 <211> 67
 <212> PRT
 <213> Pinus radiata

<400> 2241
 Met Gly Arg Ala Leu Gly Arg Thr Glu Ile Lys Arg Ile Glu Asn Glu
 1 5 10 15
 Val Ser Arg Asn Val Ser Phe Arg Lys Arg Arg Arg Gly Leu Leu Lys
 20 25 30
 Lys Ala Ala Glu Leu Ser Ile Leu Cys Asp Ala Thr Val Gly Val Val
 35 40 45
 Val Phe Ser Pro Ala Gly Lys Leu Ser Glu Tyr Ala Ser Thr Ser Glu
 50 55 60
 Gln Met Asp
 65

<210> 2242
 <211> 131
 <212> PRT

<213> Pinus radiata

<400> 2245

Thr Ala Glu Glu Asp Arg Lys Leu Val Asn Phe Ile Thr Leu His Gly
1 5 10 15
His Gly Cys Trp Arg Glu Val Pro Lys Leu Ala Gly Leu Leu Arg Cys
20 25 30
Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Asp Leu
35 40 45
Lys Arg Gly Leu Leu Ser Glu Ser Glu Glu Lys Leu Ile Ile Asp Leu
50 55 60
His Ala Ala Ile Gly Asn Arg Trp Ser Arg Ile Ala Ala Gln Leu Pro
65 70 75 80
Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr Arg Ile Lys
85 90 95
Lys Lys Leu Arg Gln Met Gly Ile Asp Pro Val Thr His Lys Pro Leu
100 105 110
Thr Gln Met Gln Met Gln Ser Thr Pro Ala Gln Thr Leu Leu Leu Gln
115 120 125
Glu Asn Asp Thr Glu Gln Gln Gln Glu Gln His Asn Glu Pro Asp
130 135 140
Pro Asp Gln Asn Gln Ser Ser Asn Gly Thr Val Glu Thr Leu Val Ser
145 150 155 160
Arg Ala Arg Glu Pro His Asp His
165

<210> 2246

<211> 164

<212> PRT

<213> Pinus radiata

<400> 2246

Ser Asp Gly Thr Thr Thr Met Ser Thr Tyr Glu Arg Lys Ala Ser Leu
1 5 10 15
Arg Glu Phe Tyr Ala Val Ile Tyr Pro Ser Leu Leu Gln Leu Glu Gly
20 25 30
Gly Ile Thr Glu Met Glu Asp Asn Lys Gln Lys Leu Ile Cys Lys Glu
35 40 45
Arg Tyr Lys Lys Arg Val Asp Glu Glu Arg Arg His Leu Ser Glu Leu
50 55 60
Asp Leu Glu Arg Glu Lys Glu Cys Gly Ile Cys Met Glu Thr Gln Thr
65 70 75 80
Lys Val Val Leu Pro Asn Cys Ser His Ala Met Cys Leu Asn Cys Tyr
85 90 95
Arg Glu Trp His Ala Arg Ser Glu Ser Cys Pro Phe Cys Arg Asp Ser
100 105 110
Leu Lys Arg Val Asn Ser Thr Asp Leu Trp Ile Phe Thr Ser Asn Glu
115 120 125
Glu Val Val Asp Met Glu Thr Leu Gly Arg Glu Asn Leu Lys Arg Leu
130 135 140
Phe Asn Tyr Ile Asp Lys Leu Pro Leu Ile Val Pro Glu Ser Leu Phe
145 150 155 160
Tyr Val Tyr Asp

<210> 2247

<211> 414

<212> PRT
 <213> Eucalyptus grandis

<400> 2247

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | His | Ser | Cys | Cys | Tyr | Lys | Gln | Lys | Leu | Arg | Lys | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Ser | Pro | Glu | Glu | Asp | Glu | Lys | Leu | Leu | Arg | His | Ile | Ser | Gln | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | His | Gly | Cys | Trp | Ser | Ser | Val | Pro | Lys | Gln | Ala | Gly | Leu | Gln | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Cys | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Ile | Asn | Tyr | Leu | Arg | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Lys | Arg | Gly | Ala | Phe | Ser | Gln | Asp | Glu | Glu | Asp | Leu | Ile | Ile | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | His | Ala | Ala | Leu | Gly | Asn | Lys | Trp | Ser | Gln | Ile | Ala | Ala | Asn | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Gly | Arg | Thr | Asp | Asn | Glu | Ile | Lys | Asn | Leu | Trp | Asn | Ser | Cys | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Lys | Lys | Leu | Arg | Gln | Arg | Gly | Ile | Asp | Pro | Val | Ser | His | Arg | Pro |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Ser | Glu | Val | Glu | Asn | Ser | Asp | Asp | Lys | Asp | Ala | Thr | Ser | Gly | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Gln | Asp | Lys | Val | Ser | Arg | Gly | Ser | Val | Glu | Leu | Leu | Ser | Gln | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Pro | Gln | Phe | Ser | Ser | Ser | Thr | Thr | Ala | Arg | Ser | Ser | Lys | Asn | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asn | Leu | Met | Ala | Pro | Thr | Leu | Ser | Lys | Asp | Thr | Val | Ala | Asp | Gly | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Ser | Asn | His | Gln | Glu | Asn | Ser | Met | Met | Asn | Ser | Cys | Ile | Ser | Asp |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Phe | Val | Asp | Asn | Phe | Ser | Leu | Gln | Gln | Leu | Asn | Tyr | Ser | Ser | Ser | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Arg | Phe | Ser | Asn | Leu | Cys | Phe | Thr | Gln | Thr | Gly | Arg | Ala | His | Gly |
| | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Thr | Ile | Phe | Ser | Asp | Phe | Asn | Ser | Asn | Val | Ile | Ser | Ala | Ile | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Pro | Ser | Ser | Asn | Ser | Leu | Phe | Pro | Thr | Ala | Ser | Met | Gly | Phe | Asn |
| | | | | 260 | | | | 265 | | | | | 270 | | |
| Phe | Lys | Pro | Ser | Asn | Ala | Val | Pro | Ser | Ala | Asn | Ser | Thr | Ser | Ser | Ala |
| | | | | 275 | | | | 280 | | | | 285 | | | |
| Ser | Thr | Gly | Thr | Ala | Asp | Phe | His | Asn | Ser | Gly | Ser | Tyr | Phe | Gly | Asn |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Leu | Val | Ser | Trp | Gly | Leu | Leu | Ala | Asp | Cys | Gly | Ser | Pro | Asp | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Gly | Ser | Thr | Ser | Ile | His | Pro | Leu | Glu | Val | His | Gln | Pro | Gly | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Phe | Lys | Trp | Ala | Ala | Glu | Tyr | Leu | Gln | Asn | Pro | Leu | Phe | Met | Ala | Ala |
| | | | | 340 | | | | 345 | | | | | 350 | | |
| Ala | Leu | Gln | Asn | Gln | Ala | Gln | Glu | Gln | Ser | Asn | Leu | Tyr | Asn | Gln | Ile |
| | | | | 355 | | | 360 | | | | | 365 | | | |
| Lys | Pro | Glu | Thr | Gln | Phe | Pro | Pro | Asp | His | Ser | Thr | Thr | Ser | Met | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asp | His | Leu | Gln | Gly | His | Glu | Ser | Leu | Asp | Asn | Ser | Leu | Asn | Thr | Cys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Lys | Asp | Ile | Gln | Arg | Leu | Thr | Ala | Leu | Leu | Gly | His | Asn | | |
| | | | | 405 | | | | | | 410 | | | | | |

<210> 2248
 <211> 205
 <212> PRT
 <213> Eucalyptus grandis

<400> 2248

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Met Arg Tyr Pro Ala Pro Ala Pro Ala Ser Arg Gly Lys Ser Thr Ser
 1          5          10          15
Thr Ala Thr Pro Cys Cys Ser Lys Val Gly Ile Lys Arg Gly Pro Trp
          20          25          30
Thr Pro Glu Glu Asp Glu Val Leu Ala Ser Tyr Val Arg Arg Glu Gly
          35          40          45
Glu Gly Arg Trp Arg Thr Leu Pro Lys Arg Ala Gly Leu Gln Arg Cys
 50          55          60
Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Arg Pro Ser Val
 65          70          75          80
Lys Arg Gly Gln Ile Ala Pro Asp Glu Glu Asp Leu Ile Leu Arg Leu
          85          90          95
His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Ile Pro
          100          105          110
Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu Ser
          115          120          125
Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His Lys Pro Leu
          130          135          140
Leu Asn His Asn Pro Ser Ser Ser Leu Ala Ala His Leu Gln Asp Thr
 145          150          155          160
Tyr Asn Ala Ser Thr Phe Thr Pro Lys Ala Thr Tyr Pro Asn Pro Thr
          165          170          175
Val Pro Val Glu Thr Gly Asp Glu Asn Asp Leu Lys Val Gly Arg
          180          185          190
Gln Pro Ala Gly Ser Ala Ser Lys Arg Gly Arg Cys Gln
          195          200          205

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<210> 2249
 <211> 195
 <212> PRT
 <213> Eucalyptus grandis

<400> 2249

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Met Asp Lys Lys Pro Asp Asp Asp Ser Gly Lys Ser Gln Asp Val Glu
 1          5          10          15
Val Arg Lys Gly Pro Trp Thr Met Glu Glu Asp Leu Ile Leu Ile Asn
          20          25          30
Tyr Ile Ala Asn His Gly Glu Gly Ser Trp Asn Ser Leu Ala Lys Ala
          35          40          45
Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn
 50          55          60
Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn Ile Thr Thr Glu Glu Gln
 65          70          75          80
Leu Leu Ile Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys
          85          90          95
Ile Ala Lys His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe
          100          105          110
Trp Arg Thr Arg Ile Gln Lys His Ile Lys Gln Ala Glu Ala Phe Ser
          115          120          125
Gly Gln Ser Ser Glu Met Ser Asp Gln Ala Ser Thr Ser His Met Ser
          130          135          140

```


65 70 75 80
 Arg Arg Leu Ala Gln Asn Arg Glu Ala Ala Arg Lys Ser Arg Leu Arg
 85 90 95
 Lys Lys Ala Tyr Val Gln Gln Leu Glu Ala Ser Arg Leu Lys Leu Met
 100 105 110
 Gln Leu Glu Gln Glu Val Asp Arg Ala Arg Gln Gln Gly Val Tyr Met
 115 120 125
 Ala Ser Gly Val Asp Ser Ala Tyr Pro Gly Tyr Gly Gly Cys Leu Asn
 130 135 140
 Ser Gly Ile
 145

<210> 2252
 <211> 43
 <212> PRT
 <213> Eucalyptus grandis

<400> 2252
 Met Met Ala Val Thr Ser Ala Cys Lys Asp Lys Met Gly Ile Asp Asn
 1 5 10 15
 Gly Lys Tyr Val Arg Tyr Thr Pro Glu Gln Val Glu Ala Leu Glu Arg
 20 25 30
 Leu Tyr His Glu Cys Pro Lys Pro Ser Ser Leu
 35 40

<210> 2253
 <211> 54
 <212> PRT
 <213> Pinus radiata

<400> 2253
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1 5 10 15
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His
 20 25 30
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly Cys Leu Pro
 35 40 45
 Ala Leu Cys Phe Leu Asn
 50

<210> 2254
 <211> 66
 <212> PRT
 <213> Pinus radiata

<400> 2254
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His
 20 25 30
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly Asp Tyr Glu
 35 40 45
 Phe Ile Phe Ser Ser Arg Thr Cys Lys Lys Phe Ser Val Phe Leu Phe
 50 55 60
 Phe Gly
 65

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

[illegible][illegible]

[illegible][illegible]

<400> 2266

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Leu | Met | Glu | Ser | Phe | Glu | Ala | Lys | Gly | Lys | Gly | Glu | Lys | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Thr | Val | Arg | Gly | Lys | Thr | Gln | Leu | Lys | Arg | Ile | Glu | Asn | Gly | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Gln | Val | Thr | Phe | Cys | Lys | Arg | Arg | Asn | Gly | Leu | Leu | Lys | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Tyr | Glu | Leu | Ser | Val | Leu | Cys | Asp | Ala | Glu | Val | Ala | Leu | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Ser | Pro | Arg | Gly | Lys | Arg | Tyr | Glu | Phe | Ala | Asn | Pro | Ser | Met | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Met | Leu | Ala | Arg | Tyr | Glu | Asn | Phe | Ser | Glu | Gly | Ser | Lys | Ala | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Thr | Ala | Lys | Glu | Gln | Asp | Val | Gln | Gly | Leu | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

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<210> 2267
<211> 134
<212> PRT
<213> Pinus radiata
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724

2025年12月10日

[illegible][illegible]

<400> 2274
 Ser Trp Lys Ala Asn Pro Cys Thr Val Pro Ser Ser Arg Ile Gly Gly
 1 5 10 15
 Phe Gly Gly Gly Gln Val Ile Leu Pro Leu Ala His Thr Val Glu His
 20 25 30
 Glu Glu Phe Leu Glu Val Ile Lys Leu Glu Asn His Gly Leu Thr Gln
 35 40 45
 Glu Glu Ala Leu Leu Ser Arg Asp Met Phe Leu Leu Gln Leu Cys Ser
 50 55 60
 Gly Leu Asp Glu Asn Ala Val Gly Ala Cys Ala Glu Leu Val Phe Ala
 65 70 75 80
 Pro Ile Asp Ala Ser Leu Ala Asp Ser Ser Pro Leu Leu Pro Ser Gly
 85 90 95
 Phe

<210> 2275
 <211> 157
 <212> PRT
 <213> Pinus radiata

<400> 2275
 Ser Val Asp Val Leu Thr Ala Phe Ser Thr Gly Asn Gly Gly Thr Ile
 1 5 10 15
 Glu Leu Leu Tyr Met Gln Met Tyr Ala Pro Thr Thr Leu Ala Ser Ala
 20 25 30
 Arg Asp Phe Trp Thr Leu Arg Tyr Thr Ser Val Leu Glu Asp Gly Ser
 35 40 45
 Leu Val Val Cys Glu Arg Ser Leu Ser Gly Thr Gln Gly Gly Pro Ser
 50 55 60
 Met Pro Ala Val Gln Gln Phe Val Arg Ala Glu Met Gln Pro Ser Gly
 65 70 75 80
 Tyr Leu Ile Arg Pro Cys Glu Gly Gly Gly Ser Leu Ile His Ile Val
 85 90 95
 Asp His Met Asp Leu Glu Pro Trp Ser Val Pro Glu Val Leu Arg Pro
 100 105 110
 Leu Tyr Glu Ser Ser Thr Val Leu Ala Gln Lys Val Thr Met Ser Ala
 115 120 125
 Leu Arg His Leu Arg Gln Ile Ala Gln Glu Ala Ser Ser Asp Val Val
 130 135 140
 Leu Gly Trp Gly Arg Gln Pro Ala Ala Leu Arg Thr Phe
 145 150 155

<210> 2276
 <211> 327
 <212> PRT
 <213> Eucalyptus grandis

<400> 2276
 Met Val Ser Val Asn Pro Asn Pro Ala Gln Gly Phe Tyr Phe Phe Asp
 1 5 10 15
 Pro Ala Asn Thr Arg Ile His Gly Val Asn Ala Gly Ser Ala Ala Glu
 20 25 30
 Gly Gly Gly Ala Ala Pro Pro Tyr Ala Glu Asp Pro Ser Lys Lys Val
 35 40 45
 Arg Lys Pro Tyr Thr Ile Thr Lys Ser Arg Glu Ser Trp Thr Glu Gln
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | His | Asp | Lys | Phe | Leu | Glu | Ala | Leu | His | Leu | Phe | Asp | Arg | Asp | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Lys | Ile | Glu | Ala | Phe | Val | Gly | Ser | Lys | Thr | Val | Ile | Gln | Ile | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | His | Ala | Gln | Lys | Tyr | Phe | Leu | Lys | Val | Gln | Lys | Asn | Gly | Thr | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | His | Val | Pro | Pro | Pro | Arg | Pro | Lys | Arg | Lys | Ala | Ala | His | Pro | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Gln | Lys | Ala | Pro | Lys | Ala | Pro | Val | Val | Ser | Gln | Val | Asn | Gly | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Gln | Val | Ser | Ser | Ala | Phe | Leu | Glu | Pro | Gly | His | Ile | Val | Arg | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Gly | Ser | Ala | Leu | Leu | Gly | Asn | Ser | Arg | Thr | Ser | Val | Ala | Leu | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Trp | Ser | His | Asn | Ser | Val | Pro | Ala | Met | Ser | Ala | Ser | Gln | Gly | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Asp | Val | Gly | Ile | Ser | Gly | Pro | Pro | Val | Pro | Ser | Asn | Cys | Cys | Asn |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ser | Ser | Ser | Asn | Asp | Ser | Thr | Pro | Arg | Ser | Trp | Pro | Asn | Ala | Gln | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Glu | Pro | Leu | Asp | Gln | Gln | Lys | His | Leu | Arg | Val | Met | Pro | Asp | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Gln | Val | Tyr | Arg | Phe | Ile | Gly | Ser | Val | Phe | Asp | Pro | Asp | Ala | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | His | Leu | Gln | Arg | Leu | Lys | Gln | Met | Asp | Pro | Ile | Asn | Leu | Glu | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Val | Leu | Leu | Met | Lys | Asn | Leu | Ser | Ala | Asn | Leu | Thr | Ser | Pro | Glu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Phe | Glu | Lys | Tyr | Gln | His | Gly | Leu | Phe | Ala | Ser | Tyr | Glu | Gly | Gly | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Lys | Ser | Lys | Ser | Gly | Gly | Ser | Phe | Lys | Leu | Leu | Pro | Glu | Lys | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Ser | Leu | Ile | Leu | Ser | Ala | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | |

<210> 2277

<211> 225

<212> PRT

<213> Pinus radiata

<400> 2277

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Arg | Ser | Pro | Cys | Cys | Glu | Lys | Ala | His | Thr | Asn | Lys | Gly | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Thr | Lys | Gln | Glu | Asp | Asp | Arg | Leu | Ile | Ala | His | Ile | Arg | Ala | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Glu | Gly | Gly | Trp | Arg | Ser | Leu | Pro | Lys | Ala | Ala | Gly | Leu | Leu | Arg |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Cys | Gly | Lys | Ser | Cys | Arg | Leu | Arg | Trp | Ile | Asn | Tyr | Leu | Arg | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Lys | Arg | Gly | Ser | Phe | Thr | Glu | Glu | Glu | Asp | Glu | Leu | Ile | Ile | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | His | Ser | Phe | Val | Gly | Asn | Lys | Trp | Ser | Leu | Ile | Ala | Gly | Arg | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Gly | Arg | Thr | Asp | Asn | Glu | Ile | Lys | Asn | Tyr | Trp | Asn | Thr | His | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Arg | Lys | Leu | Leu | Ser | Lys | Gly | Leu | Asp | Pro | Gln | Thr | His | Arg | Pro |
| | 115 | | | | | | 120 | | | | | 125 | | | |

Leu Gly Gln Pro Asn Asn Thr Pro Val Thr Arg Pro Val Leu Glu His
 130 135 140
 Glu Ile Pro Ala Phe Gln Asn Pro Ala Thr Pro Glu Ile Ala Asp Leu
 145 150 155 160
 Leu Gln His His Arg Leu Glu Ser Ser Pro Ile Lys Pro Ala Ala Ser
 165 170 175
 Asp Ala Glu Glu His Pro Asp Leu Asn Leu Asn Leu Cys Ile Ser Leu
 180 185 190
 Pro Ser Asn Ser Ala Pro Ala Val Asn Arg Val Ser Ser Val Asp Thr
 195 200 205
 Thr Val Asp Ser Asn Ser Asn Ser Gly Asp Gly Leu Cys Trp Gln Phe
 210 215 220
 Leu
 225

<210> 2278
 <211> 69
 <212> PRT
 <213> Pinus radiata

<400> 2278
 Met Leu Leu Gln Asn Val Pro Pro Ala Leu Leu Val Arg Phe Leu Arg
 1 5 10 15
 Glu His Arg Ser Glu Trp Ala Asp Cys Asn Ile Asp Ala Tyr Ser Ser
 20 25 30
 Ala Thr Met Lys Ala Asn Ala Tyr Asn Val Pro Gly Ser Leu Gly Gly
 35 40 45
 Ile Thr Gly Ser Gln Val Ile Leu Pro Leu Ala His Thr Val Glu His
 50 55 60
 Glu Glu Phe Leu Glu
 65

<210> 2279
 <211> 65
 <212> PRT
 <213> Eucalyptus grandis

<400> 2279
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val
 1 5 10 15
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr
 20 25 30
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala
 35 40 45
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr
 50 55 60
 Leu
 65

<210> 2280
 <211> 39
 <212> PRT
 <213> Eucalyptus grandis

<400> 2280
 Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Glu Ile Ile
 1 5 10 15

Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala Ser
 20 25 30
 Arg Leu Ser Gly Arg Thr Asp
 35

<210> 2281
 <211> 59
 <212> PRT
 <213> Eucalyptus grandis

<400> 2281
 Arg Lys Pro Cys Cys Asp Lys Gln Asp Thr Asn Lys Gly Ala Trp Ser
 1 5 10 15
 Lys Gln Glu Asp Gln Lys Leu Ile Asp Tyr Ile Arg Lys His Gly Glu
 20 25 30
 Gly Cys Trp Arg Thr Leu Pro Lys Ala Ala Gly Leu Leu Arg Cys Gly
 35 40 45
 Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu
 50 55

<210> 2282
 <211> 48
 <212> PRT
 <213> Eucalyptus grandis

<400> 2282
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile
 1 5 10 15
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser
 35 40 45

<210> 2283
 <211> 19
 <212> PRT
 <213> Eucalyptus grandis

<400> 2283
 Cys Cys Ser Lys Lys Ala Val Lys Arg Gly Phe Trp Ser Pro Glu Glu
 1 5 10 15
 Asp Leu Lys

<210> 2284
 <211> 45
 <212> PRT
 <213> Eucalyptus grandis

<400> 2284
 Trp Thr Arg Glu Glu Asp Asn Leu Leu Ile His Ser Ile Thr Cys His
 1 5 10 15
 Gly Glu Gly Arg Trp Asn Met Leu Ala Lys Ser Ala Gly Leu Lys Arg
 20 25 30
 Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu
 35 40 45

1999年12月15日 星期二 晴
 1999年12月16日 星期三 晴
 1999年12月17日 星期四 晴
 1999年12月18日 星期五 晴
 1999年12月19日 星期六 晴
 1999年12月20日 星期日 晴
 1999年12月21日 星期一 晴
 1999年12月22日 星期二 晴
 1999年12月23日 星期三 晴
 1999年12月24日 星期四 晴
 1999年12月25日 星期五 晴
 1999年12月26日 星期六 晴
 1999年12月27日 星期日 晴
 1999年12月28日 星期一 晴
 1999年12月29日 星期二 晴
 1999年12月30日 星期三 晴
 1999年12月31日 星期四 晴

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Asp | Ile | Lys | Arg | Gly | Asn | Leu | Thr | Pro | Gln | Glu | Gln | Leu | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Leu | Glu | Leu | His | His | Lys | Trp | Gly | Asn | Arg | Trp | Ser | Lys | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Tyr | Leu | Pro | Gly | Arg | Thr | Asp | Asn | Glu | Ile | Lys | Asn | Tyr | Trp | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Val | Gln | Lys | Gln | Ala | Arg | Gln | | | | | | | |
| | 50 | | | | | 55 | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 2286 | | | | | | | | | | | | | | | |
| Met | Ala | Ser | Arg | Lys | Glu | Val | Asp | Arg | Ile | Lys | Gly | Pro | Trp | Ser | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Glu | Asp | Glu | Ala | Leu | Arg | Leu | Leu | Val | Gln | Lys | His | Gly | Pro | Arg |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Asn | Trp | Ser | Leu | Ile | Ser | Lys | Ser | Ile | Pro | Gly | Arg | Ser | Gly | Lys | Ser |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Cys | Arg | Leu | Arg | Trp | Cys | Asn | Gln | Leu | | | | | | | |
| | 50 | | | | | 55 | | | | | | | | | |

[illegible]

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 2288 | | | | | | | | | | | | | | | |
| Met | Gly | Arg | His | Ser | Cys | Cys | Tyr | Lys | Gln | Lys | Leu | Arg | Lys | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Ser | Pro | Glu | Asp | Glu | Lys | Leu | Leu | Arg | Tyr | Ile | Thr | Gln | Tyr | |
| | | | 20 | | | | 25 | | | | | 30 | | | |

<400> 2292
 Pro Asp Leu Lys Arg Gly Asn Phe Ala Glu Asp Glu Glu Asp Leu Ile
 1 5 10 15
 Ile Lys Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr Trp Asn Ser
 35 40 45
 His Leu Arg Arg Lys Leu Leu Lys Met Gly Ile Asp Pro Asn Asn His
 50 55 60
 Arg
 65

<210> 2293
 <211> 54
 <212> PRT
 <213> Eucalyptus grandis

<400> 2293
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1 5 10 15
 Trp Thr Lys Glu Glu Asp Gln Arg Leu Ile Asp Tyr Ile Arg Leu His
 20 25 30
 Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ser Ala Gly Leu Leu Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg
 50

<210> 2294
 <211> 65
 <212> PRT
 <213> Eucalyptus grandis

<400> 2294
 Met Ala Arg Phe Pro Arg Val Asp Lys Ser Asn Ser Lys Lys Thr Val
 1 5 10 15
 Lys Lys Gly Ala Trp Ser Ala Glu Glu Asp Gln Lys Leu Val Ala Tyr
 20 25 30
 Ile Lys Arg Tyr Gly Ile Trp Asn Trp Thr His Met Ala Glu Pro Ala
 35 40 45
 Gly Leu Ala Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr
 50 55 60
 Leu
 65

<210> 2295
 <211> 40
 <212> PRT
 <213> Eucalyptus grandis

<400> 2295
 Arg Pro Asn Ile Lys His Gly Asn Ile Thr Gln Glu Glu Glu Glu Ile
 1 5 10 15
 Ile Ile Asn Leu His Arg Val Leu Gly Asn Arg Trp Ala Ser Ile Ala
 20 25 30
 Ser Arg Leu Ser Gly Arg Thr Asp
 35 40

<400> 2300
 Pro Asp Leu Lys Arg Gly Asn Phe Ser Asp Glu Glu Asp Glu Leu Ile
 1 5 10 15
 Ile Thr Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Ala
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr
 35 40 45
 His Ile Lys Arg Lys Leu His Ala Arg Gly Ile Asp Pro Gln Thr His
 50 55 60
 Arg Pro Leu
 65

<210> 2301
 <211> 50
 <212> PRT
 <213> Eucalyptus grandis

<400> 2301
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu
 1 5 10 15
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn
 20 25 30
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
 35 40 45
 Tyr Phe
 50

<210> 2302
 <211> 53
 <212> PRT
 <213> Eucalyptus grandis

<400> 2302
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Leu Phe Leu Leu
 1 5 10 15
 Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Arg Ala Ile Ser Arg Asn
 20 25 30
 Phe Val Lys Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
 35 40 45
 Tyr Phe Leu Arg Arg
 50

<210> 2303
 <211> 64
 <212> PRT
 <213> Eucalyptus grandis

<400> 2303
 Met Ala Ser Ser Ser Ser Val Ala Ser Ala Arg Lys Asp Ala Asp Arg
 1 5 10 15
 Ile Lys Gly Pro Trp Ser Pro Glu Glu Asp Glu Ala Leu Gln Arg Leu
 20 25 30
 Val Gln Ser Tyr Gly Pro Arg Asn Trp Ser Leu Ile Ser Lys Ser Ile
 35 40 45
 Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu
 50 55 60

<210> 2304
 <211> 98
 <212> PRT
 <213> Eucalyptus grandis

<400> 2304
 Ser Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Glu Ala
 1 5 10 15
 Ile Val Arg Ala His Ala Arg Phe Gly Asn Lys Trp Ala Thr Ile Ala
 20 25 30
 Arg Leu Leu Asn Gly Arg Thr Asp Asn Ala Val Lys Asn His Trp Asn
 35 40 45
 Ser Thr Leu Lys Arg Lys Cys Ser Ser Thr Cys Ser Ala Gly Gly Asp
 50 55 60
 Asp Ala Asp Ala Leu Ala Glu Gln Gln Pro Leu Lys Arg Ser Ala Ser
 65 70 75 80
 Leu Gly Thr Pro Thr Gly Gly Asn Asn Ala Val Ser Asp Leu Phe Phe
 85 90 95
 Ser Pro

<210> 2305
 <211> 50
 <212> PRT
 <213> Eucalyptus grandis

<400> 2305
 Leu Arg Lys Gly Leu Trp Ser Pro Glu Glu Asp Asp Lys Leu Met Asn
 1 5 10 15
 Tyr Met Leu Asn Asn Gly Gln Gly Cys Trp Ser Asp Val Ala Arg Asn
 20 25 30
 Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn
 35 40 45
 Tyr Leu
 50

<210> 2306
 <211> 60
 <212> PRT
 <213> Eucalyptus grandis

<400> 2306
 Pro Asp Leu Lys Arg Gly Ala Phe Ser Pro Gln Glu Glu Glu Leu Ile
 1 5 10 15
 Ile His Leu His Ser Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Asn Ser
 35 40 45
 Thr Ile Lys Lys Arg Ser Arg Thr Arg His His Leu
 50 55 60

<210> 2307
 <211> 44
 <212> PRT
 <213> Eucalyptus grandis

<400> 2307

Lys Leu Asp Phe Ser Glu Asp Glu Glu Thr Leu Val Ile Arg Met Tyr
 1 5 10 15
 Asn Leu Val Gly Glu Arg Trp Ser Leu Ile Ala Gly Arg Ile Pro Gly
 20 25 30
 Arg Thr Ala Glu Glu Ile Glu Lys Tyr Trp Asn Ser
 35 40

<210> 2308
 <211> 61
 <212> PRT
 <213> Eucalyptus grandis

<400> 2308
 Met Gly Arg Gln Pro Cys Cys Asp Lys Leu Gly Val Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Ala Glu Glu Asp Arg Lys Leu Val Asn Phe Ile Leu Thr His
 20 25 30
 Gly Gln Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu
 50 55 60

<210> 2309
 <211> 64
 <212> PRT
 <213> Eucalyptus grandis

<400> 2309
 Pro Asp Leu Lys Arg Gly Leu Leu Asn Glu Ala Glu Glu Ser Leu Val
 1 5 10 15
 Ile Asp Leu His Ala Thr Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr
 35 40 45
 His Ile Lys Lys Lys Leu Ile Arg Met Gly Ile Asp Pro Val Thr His
 50 55 60

<210> 2310
 <211> 61
 <212> PRT
 <213> Eucalyptus grandis

<400> 2310
 Met Gly Arg Gln Pro Cys Cys Asp Lys Ser Gly Val Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Ala Glu Glu Asp Lys Lys Leu Ile Asn Phe Ile Leu Thr Asn
 20 25 30
 Gly His Cys Cys Trp Arg Ala Val Pro Lys Leu Ala Gly Leu Arg Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu
 50 55 60

<210> 2311
 <211> 67
 <212> PRT
 <213> Eucalyptus grandis

<400> 2311
 Pro Asp Leu Lys Arg Gly Leu Leu Ser Glu Ala Glu Glu Gln Leu Val
 1 5 10 15
 Ile Asp Leu His Ala Arg Leu Gly Asn Arg Trp Ser Lys Ile Ala Ala
 20 25 30
 Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn His Trp Asn Thr
 35 40 45
 His Ile Lys Lys Lys Leu Leu Lys Met Gly Ile Asp Pro Val Thr His
 50 55 60
 Glu Pro Leu
 65

<210> 2312
 <211> 50
 <212> PRT
 <213> Pinus radiata

<400> 2312
 Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr
 1 5 10 15
 Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn
 20 25 30
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
 35 40 45
 Tyr Phe
 50

<210> 2313
 <211> 53
 <212> PRT
 <213> Pinus radiata

<400> 2313
 Lys Lys Gly Val Pro Trp Ser Glu Glu Glu His Arg Met Phe Leu Tyr
 1 5 10 15
 Gly Leu Glu Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ser Arg Asn
 20 25 30
 Phe Val Thr Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
 35 40 45
 Tyr Phe Leu Arg Gln
 50

<210> 2314
 <211> 60
 <212> PRT
 <213> Pinus radiata

<400> 2314
 Gly Lys Ser Pro Gly His Asp Glu Pro Asp Arg Ile Lys Gly Pro Trp
 1 5 10 15
 Ser Pro Glu Glu Asp Ala Ala Leu Gln His Phe Val Gln Lys Tyr Gly
 20 25 30
 Pro Arg Asn Trp Ser Leu Ile Ser Lys Ala Ile Pro Gly Arg Ser Gly
 35 40 45
 Lys Ser Cys Arg Leu Arg Trp Cys Asn Gln Leu Ser
 50 55 60

<210> 2315
 <211> 60
 <212> PRT
 <213> Pinus radiata

<400> 2315
 Pro Gln Val Glu His Arg Pro Phe Thr Pro Glu Glu Asp Ala Thr Ile
 1 5 10 15
 Val Arg Ala His Ala Gln His Gly Asn Lys Trp Ala Thr Ile Ala Arg
 20 25 30
 Met Leu Ser Gly Arg Thr Asp Asn Ala Ile Lys Asn His Trp Asn Ser
 35 40 45
 Thr Leu Arg Arg Arg Cys Gln Gly Gly Gly Ala Leu
 50 55 60

<210> 2316
 <211> 20
 <212> PRT
 <213> Pinus radiata

<400> 2316
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val
 1 5 10 15
 Gly Leu Gln Arg
 20

<210> 2317
 <211> 18
 <212> PRT
 <213> Pinus radiata

<400> 2137
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Val
 1 5 10 15
 Gly Leu

<210> 2318
 <211> 10
 <212> PRT
 <213> Pinus radiata

<400> 2318
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu
 1 5 10

<210> 2319
 <211> 14
 <212> PRT
 <213> Pinus radiata

<400> 2319
 Lys Arg Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe
 1 5 10

<210> 2320
 <211> 68

<212> PRT
<213> Pinus radiata

<400> 2320
Met Arg Cys Thr Arg Trp Gln Gly Leu Pro Phe Ser Ser Lys Pro Lys
1 5 10 15
Val Lys Lys Gly Leu Trp Ser Pro Glu Glu Asp Glu Lys Leu Ile Asn
20 25 30
Tyr Met Met Lys Asn Gly Leu Leu Gly Cys Ser Trp Ser Tyr Val Ala
35 40 45
Lys Gln Ile Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp
50 55 60
Thr Asn Tyr Leu
65

<210> 2321
<211> 62
<212> PRT
<213> Pinus radiata

<400> 2321
Met Gly Arg Ala Pro Cys Cys Asp Lys Ala Asn Val Lys Lys Gly Pro
1 5 10 15
Trp Ser Pro Glu Glu Asp Thr Lys Leu Lys Ala Phe Ile Glu Gln His
20 25 30
Gly Thr Gly Gly Asn Trp Ile Ala Leu Pro Gln Lys Ala Gly Leu Lys
35 40 45
Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu
50 55 60

<210> 2322
<211> 60
<212> PRT
<213> Pinus radiata

<400> 2322
Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
1 5 10 15
Trp Thr Lys Glu Glu Asp Asp Arg Leu Ile Ala His Ile Arg Thr His
20 25 30
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Met Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr
50 55 60

<210> 2323
<211> 46
<212> PRT
<213> Pinus radiata

<400> 2323
Arg Pro Asp Leu Lys Arg Gly Asn Phe Ser Glu Glu Glu Asp Glu Leu
1 5 10 15
Ile Ile Lys Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala
20 25 30
Gly Arg Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr
35 40 45

50

<210> 2328
 <211> 53
 <212> PRT
 <213> Pinus radiata

<400> 2328
 Lys Lys Gly Val Pro Trp Thr Glu Glu Glu His Arg Met Phe Leu Leu
 1 5 10 15
 Gly Leu Gln Lys Leu Gly Lys Gly Asp Trp Arg Gly Ile Ala Arg Asn
 20 25 30
 Phe Val Ile Thr Arg Thr Pro Thr Gln Val Ala Ser His Ala Gln Lys
 35 40 45
 Tyr Phe Ile Arg Gln
 50

<210> 2329
 <211> 48
 <212> PRT
 <213> Pinus radiata

<400> 2329
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala
 1 5 10 15
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly
 20 25 30
 Thr Lys Thr Ala Val Gln Ile Arg Ser His Ala Gln Lys Phe Phe Ser
 35 40 45

<210> 2330
 <211> 42
 <212> PRT
 <213> Pinus radiata

<400> 2330
 Gln Arg Glu Arg Trp Ser Glu Asp Glu His Leu Lys Phe Leu Glu Ala
 1 5 10 15
 Leu Lys Met Tyr Gly Arg Ala Trp Arg Arg Ile Glu Glu His Ile Gly
 20 25 30
 Thr Lys Thr Ala Val Gln Ile Arg Ser His
 35 40

<210> 2331
 <211> 61
 <212> PRT
 <213> Pinus radiata

<400> 2331
 Met Gly Arg Thr Pro Cys Cys Leu Lys Val Gly Leu Asn Arg Gly Pro
 1 5 10 15
 Trp Thr Pro Glu Glu Asp Leu Cys Leu Ser Asn Tyr Ile Glu Ala His
 20 25 30
 Gly Glu Gly Gly Trp Arg Thr Leu Pro Lys Lys Ala Gly Leu Leu Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu
 50 55 60

[illegible]

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<210> 2333
<211> 55
<212> PRT
<213> Pinus radiata
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<210> 2334
<211> 56
<212> PRT
<213> Pinus radiata
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<210> 2335
<211> 34
<212> PRT
<213> Pinus radiata
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Lys Asp 20 25 30

<210> 2336
 <211> 51
 <212> PRT
 <213> Pinus radiata

<400> 2336
 Leu Arg Lys Gly Leu Trp Ser Pro Asp Glu Asp Ile Glu Leu Thr Thr
 1 5 10 15
 Tyr Ile Met Arg Lys Gly Leu Met Gly Cys Trp Asn Tyr Ile Ala Lys
 20 25 30
 Gln Ala Gly Leu Gln Arg Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile
 35 40 45
 Asn Tyr Leu
 50

<210> 2337
 <211> 45
 <212> PRT
 <213> Pinus radiata

<400> 2337
 Pro Gly Leu Lys Arg Cys Ala Ile Ser Pro Gln Glu Glu Arg Leu Ile
 1 5 10 15
 Ile Gln Leu Gln Ser Ser Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala
 20 25 30
 His Leu Pro Gly Arg Thr Asp Asn Glu Val Lys Asn Tyr
 35 40 45

<210> 2338
 <211> 62
 <212> PRT
 <213> Pinus radiata

<400> 2338
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1 5 10 15
 Trp Thr Gln Gln Glu Asp Thr Arg Leu Val Ala His Ile Arg Ala His
 20 25 30
 Gly Gln Gly Gly Trp Ser Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Gln Arg Trp Ile Asn Tyr Leu His
 50 55 60

<210> 2339
 <211> 39
 <212> PRT
 <213> Pinus radiata

<400> 2339
 Pro Asp Leu Lys Arg Ser Asn Phe Ser Glu Glu Glu Asp Glu Leu Ile
 1 5 10 15
 Val Arg Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly
 20 25 30

Arg Leu Pro Gly Arg Thr Asp
35

<210> 2340
<211> 61
<212> PRT
<213> Pinus radiata

<400> 2340
Gly Thr His Pro Ala Pro Ser Lys Pro Lys Leu Arg Lys Gly Leu Trp
1 5 10 15
Ser Pro Val Glu Asp Asn Gln Leu Thr Asn Tyr Ile Leu Arg Arg Gly
20 25 30
Leu Val Gly Cys Trp Asn Tyr Val Ala Lys Gln Ala Gly Leu Gln Arg
35 40 45
Thr Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu
50 55 60

<210> 2341
<211> 43
<212> PRT
<213> Pinus radiata

<400> 2341
Pro Gly Leu Lys Arg His Pro Ile Ser Arg Gln Glu Glu Gln Leu Ile
1 5 10 15
Ile Glu Leu Gln Ser Ile Leu Gly Asn Arg Trp Ser Gln Ile Ala Ala
20 25 30
Gln Leu Pro Gly Arg Thr Asp Ile Glu Ile Lys
35 40

<210> 2342
<211> 61
<212> PRT
<213> Eucalyptus grandis

<400> 2342
Met Gly Arg His Ser Cys Cys Tyr Lys Gln Lys Leu Arg Lys Gly Leu
1 5 10 15
Trp Ser Pro Glu Glu Asp Glu Lys Leu Leu Arg His Ile Ser Gln Tyr
20 25 30
Gly His Gly Cys Trp Ser Ser Val Pro Lys Gln Ala Gly Leu Gln Arg
35 40 45
Cys Gly Lys Ser Cys Arg Leu Arg Trp Ile Asn Tyr Leu
50 55 60

<210> 2343
<211> 67
<212> PRT
<213> Eucalyptus grandis

<400> 2343
Pro Asp Leu Lys Arg Gly Ala Phe Ser Gln Asp Glu Glu Asp Leu Ile
1 5 10 15
Ile Glu Leu His Ala Ala Leu Gly Asn Lys Trp Ser Gln Ile Ala Ala
20 25 30
Asn Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Leu Trp Asn Ser

35 40 45
 Cys Leu Lys Lys Lys Leu Arg Gln Arg Gly Ile Asp Pro Val Ser His
 50 55 60
 Arg Pro Leu
 65

<210> 2344
 <211> 58
 <212> PRT
 <213> Eucalyptus grandis

<400> 2344
 Thr Pro Cys Cys Ser Lys Val Gly Ile Lys Arg Gly Pro Trp Thr Pro
 1 5 10 15
 Glu Glu Asp Glu Val Leu Ala Ser Tyr Val Arg Arg Glu Gly Glu Gly
 20 25 30
 Arg Trp Arg Thr Leu Pro Lys Arg Ala Gly Leu Gln Arg Cys Gly Lys
 35 40 45
 Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu
 50 55

<210> 2345
 <211> 67
 <212> PRT
 <213> Eucalyptus grandis

<400> 2345
 Pro Ser Val Lys Arg Gly Gln Ile Ala Pro Asp Glu Glu Asp Leu Ile
 1 5 10 15
 Leu Arg Leu His Arg Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly
 20 25 30
 Arg Ile Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr
 35 40 45
 His Leu Ser Lys Lys Leu Ile Ser Gln Gly Ile Asp Pro Arg Thr His
 50 55 60
 Lys Pro Leu
 65

<210> 2346
 <211> 67
 <212> PRT
 <213> Eucalyptus grandis

<400> 2346
 Met Asp Lys Lys Pro Asp Asp Asp Ser Gly Lys Ser Gln Asp Val Glu
 1 5 10 15
 Val Arg Lys Gly Pro Trp Thr Met Glu Glu Asp Leu Ile Leu Ile Asn
 20 25 30
 Tyr Ile Ala Asn His Gly Glu Gly Ser Trp Asn Ser Leu Ala Lys Ala
 35 40 45
 Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn
 50 55 60
 Tyr Leu Arg
 65

<210> 2347
 <211> 56

<212> PRT
 <213> Eucalyptus grandis

<400> 2347
 Pro Asp Val Arg Arg Gly Asn Ile Thr Thr Glu Glu Gln Leu Leu Ile
 1 5 10 15
 Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys
 20 25 30
 His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Arg Thr
 35 40 45
 Arg Ile Gln Lys His Ile Lys Gln
 50 55

<210> 2348
 <211> 63
 <212> PRT
 <213> Eucalyptus grandis

<400> 2348
 Met Asp Lys Lys Pro Cys Tyr Arg Thr Gln Asp Pro Gln Val Arg Lys
 1 5 10 15
 Gly Pro Trp Thr Leu Glu Glu Asp Leu Ile Leu Met Asp Tyr Ile Ala
 20 25 30
 Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu
 35 40 45
 Gln Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu
 50 55 60

<210> 2349
 <211> 54
 <212> PRT
 <213> Eucalyptus grandis

<400> 2349
 Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile
 1 5 10 15
 Ile His Leu Gln Ser Met Trp Gly Asn Arg Trp Ser Glu Ile Ala Lys
 20 25 30
 His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr
 35 40 45
 Lys Ile Gln Lys His Ile
 50

<210> 2350
 <211> 47
 <212> PRT
 <213> Eucalyptus grandis

<400> 2350
 Ser Arg Glu Ser Trp Thr Glu Gln Glu His Asp Lys Phe Leu Glu Ala
 1 5 10 15
 Leu His Leu Phe Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly
 20 25 30
 Ser Lys Thr Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe
 35 40 45

<210> 2351

<211> 59
 <212> PRT
 <213> Eucalyptus grandis

<400> 2351
 Ser Trp Thr Glu Gln Glu His Asp Lys Phe Leu Glu Ala Leu His Leu
 1 5 10 15
 Phe Asp Arg Asp Trp Lys Lys Ile Glu Ala Phe Val Gly Ser Lys Thr
 20 25 30
 Val Ile Gln Ile Arg Ser His Ala Gln Lys Tyr Phe Leu Lys Val Gln
 35 40 45
 Lys Asn Gly Thr Ser Glu His Val Pro Pro Pro
 50 55

<210> 2352
 <211> 45
 <212> PRT
 <213> Pinus radiata

<400> 2352
 Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala
 1 5 10 15
 Trp Thr Lys Gln Glu Asp Asp Arg Leu Ile Ala His Ile Arg Ala His
 20 25 30
 Gly Glu Gly Gly Trp Arg Ser Leu Pro Lys Ala Ala Gly
 35 40 45

<210> 2353
 <211> 45
 <212> PRT
 <213> Pinus radiata

<400> 2353
 Met Gly Arg Ala Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro
 1 5 10 15
 Trp Thr Pro Glu Glu Asp Gln Lys Leu Val Thr Tyr Ile Gln Glu His
 20 25 30
 Gly His Gly Ser Trp Arg Ala Leu Pro Gln Lys Ala Gly
 35 40 45

<210> 2354
 <211> 61
 <212> PRT
 <213> Pinus radiata

<400> 2354
 Met Gly Arg Ser Pro Cys Cys Ala Lys Glu Gly Leu Asn Arg Gly Ala
 1 5 10 15
 Trp Thr Lys Thr Glu Asp Ile Ile Leu Ser Glu Tyr Ile Arg Ile His
 20 25 30
 Gly Asp Gly Gly Trp Arg Ser Leu Pro Lys Lys Ala Gly Leu Lys Arg
 35 40 45
 Cys Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu
 50 55 60

<210> 2355
 <211> 61

